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THE MAGAZINE FOR
GROWING COMPANIES

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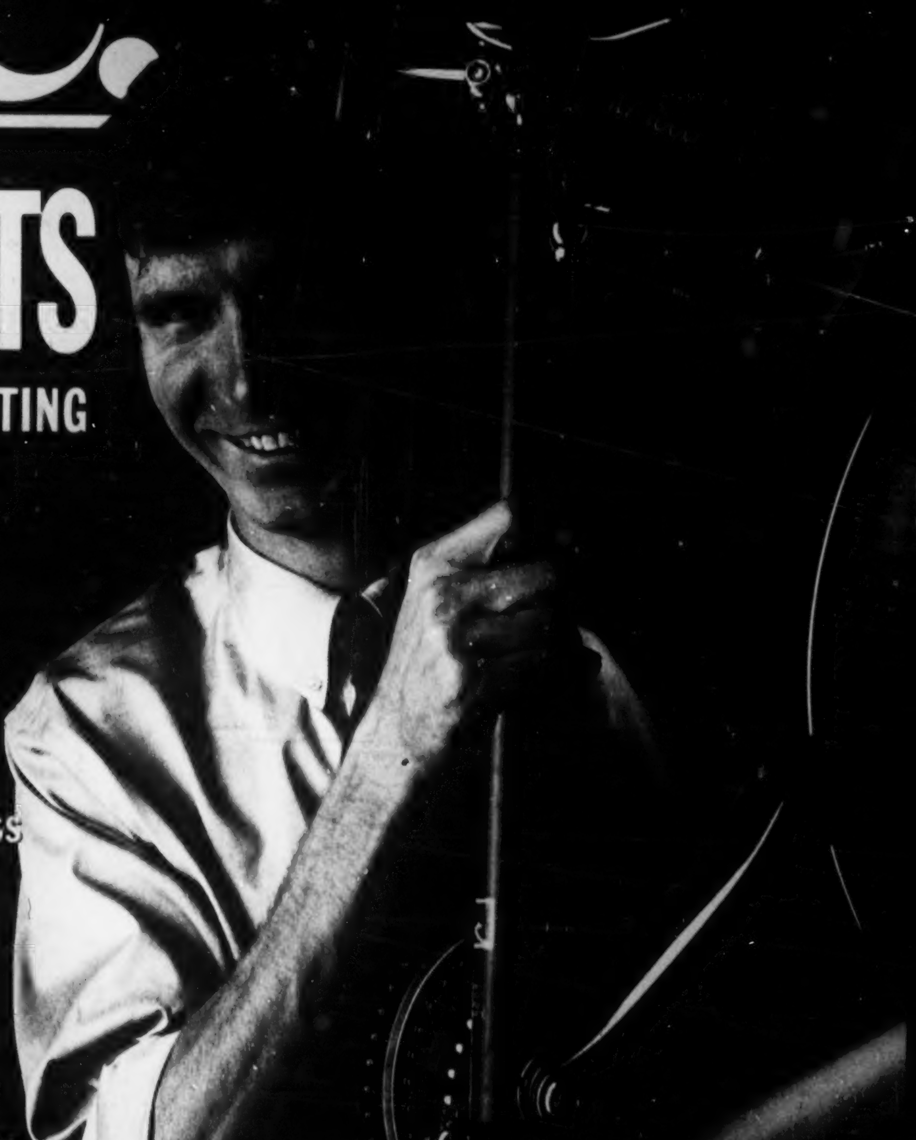

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HANDS ON

A Manager's Notebook

MANAGING PEOPLE

IN THE CARDS

Looking to decrease accidents and the number of days your employees call in sick? How about a nice game of cards? Scott Pilato and Andy Juster, cofounders of Sunny Waterbeds & Accessories, in Orlando, let workers pick a card from a poker deck if they had perfect attendance and no time lost due to accidents during the preceding five workdays.

After seven weeks the value of the cards is tallied (face cards count as 10 points). The two people with the highest and lowest totals split the pot, which starts at $200 and increases by $100 for each seven-week period all 45 employees go without an accident.

"We started this a year ago after the state increased our workers' compensation by 29%, because of our high accident rate," says Pilato. "Basically, we take the money we were paying in medical bills and put it in the pot. But the program has been so effective that our workers' comp will be $2,000 less next year. Employees are more careful, and they remind each other to be more careful, so the size of the pot keeps increasing." ❑

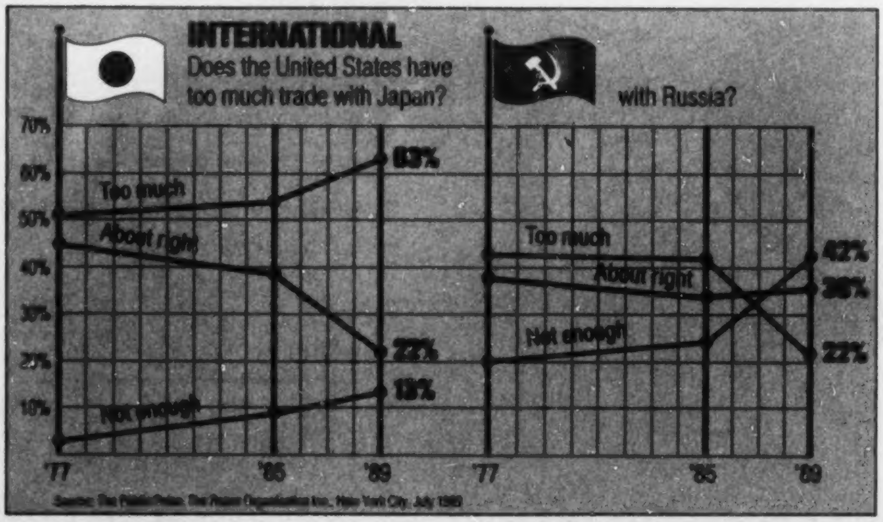
EMPLOYEE MOTIVATION

NAMING NAMES

Production workers can often feel anonymous and underappreciated, especially since they usually don't have their own offices. "It's crucial to break through that barrier," says Chet Giermak, CEO of Eriez Magnetics, a $50-million manufacturer of magnetic laboratory equipment in Erie, Pa. "It's important that they understand that we need them."

That's why his factory has nameplates in its work areas. Each employee's name is engraved into a 4-by-30-inch slat, with the job description preceded by the word "sales"—as in sales/welding, or sales/machine shop—to reinforce the message that they play a key role in the company's growth. "I have a nameplate on my desk," says Giermak. "And these people are every bit as important to the company as I am.

"People like to see their names up there," adds Giermak. "Everybody wants to feel needed and useful." ❑



Source: The Public Pulse, The Roper Organization Inc., New York City, July 1989

ABUSE What businesses are doing about employee substance abuse

Of the companies taking any action:

60%	Provide internal counseling
58%	Require entry in rehabilitation program
51%	Fire the employee
43%	Grant a leave of absence

Source: Jackson, Lewis, Schnitzler & Krupman survey of 1,014 employment-law symposia attendees, 1989

CORPORATE IDENTITY

FORGO THE LOGO

Forget bulls and doughboys—what do you have as your corporate logo? If you answered "nothing," you may be better off, says Bill Drenttel. His company, Drenttel Doyle Partners, is a New York City advertising and design agency that develops corporate identities and logos. Growing companies shouldn't waste a lot of time trying to create a symbol they can call their own, he says. "As more and more big companies go about creating—or recreating—their logos, you're bound to get lost in the clutter," Drenttel adds. "Your best bet is to let your product's name stand for your company." It works for companies from Oshkosh and Smuckers to Marriott. ❑

RESOURCES

PAPER NICHE

Did you ever wonder why more businesses don't use recycled-paper products? Today there are high-quality recycled variations of most office paper products. Unfortunately, distribution has been spotty at best.

To the rescue come two full-service recycled-paper merchants: Conservatree Paper Co., which sells mostly to government offices and midsize and large companies; and Earth Care Paper Inc., which caters to small businesses and consumers. Each carries more than 250 paper products, including xerographic paper. Conservatree even offers glossy, four-color printing paper. Shipping charges vary.

Not only is the quality of the products comparable to conventional paper, so is the price. "Higher price for recycled paper is somewhat of a myth," claims Alan Davis, president of Conservatree, a three-time INC. 500 company. Only during times of exceptional demand do recycled prices exceed by 10% the price of virgin counterparts.

For catalogs, write: Earth Care Paper, P.O. Box 3335, Madison WI 53704; Conservatree, 10 Lombard St., Suite 250, San Francisco CA 94111. ❑

CHARTS: CYNTHIA DAVIS

HANDS ON

FAMILY BUSINESS

AN INSIDER'S GUIDE TO HARMONY

When it comes to the delicate matters of family business—like turning a niece or nephew down for a job—typical company rule books don't offer much solace. But J. W. Kisling, CEO of Multiplex Co., a Ballwin, Mo., beverage-dispenser manufacturer with more than 200 employees, rests easy knowing that the family consensus statement is on relatives' desks at the office.

The document isn't legally binding, but it does answer commonly asked questions about executive and director qualifications, pay scales, retirement ages, and employment opportunities before they get to Kisling's office. Thanks to the inclusion of some entertaining family history, the consensus statement has enjoyed a friendly reception.

While a few of the 22 family stockholders refused to sign off on the first draft, the objections raised were easily remedied. Has it been used? "To my great surprise, nieces and nephews can cite it. It was definitely worth the trouble," says Kisling. ❑

MARKETING

PROMOTE VALUE

Giving discounts or including a free gift with a purchase is a sure way to increase sales—but only if the deal is worth what you say it is. "Nothing turns off the consumer faster than saying you are giving them a $9.95 value, when they know they can go down to K mart and buy the same thing for $5," says Clifford Medney, director of sales promotion for A&W Brands Inc.

But you don't have to spend full price to give someone a true bargain. A&W, for example, purchases thousands of teddy bears in the Far East, knowing similar bears retail for $25. By going directly to the manufacturer, A&W can pass its discount on to customers. A&W is happy because the $9.95 that consumers pay for the A&W Great Root Bear covers expenses. Consumers are happy because they save more than 60%. ❑

COMMUNICATIONS

BRINGING EMPLOYEES TOGETHER

If your business has many branches or locations and is growing at a rapid pace, how can you possibly manage to communicate with all of your employees? Try publishing a booklet that highlights the events of the meetings held at every company branch and location and distributing it to all employees.

Once each quarter several executives of Staples Inc., a $120-million discount office-supply chain based in Newton, Mass., meet with employees at each of the company's 34 stores. They talk about the company's performance and the priorities for the months ahead, pick one problem area, and solicit suggestions.

Employees also get a chance to ask questions and raise any other issues of concern. A month later Staples distributes to all its employees a booklet featuring answers to the most commonly asked questions at each meeting, as well as additional company news and information.

"The meetings make people feel that management is interested in them and in the best ways to do things," says Todd Krasnow, vice-president of marketing. The booklet ensures that everyone at all of the company's branches gets to share in that employee wisdom. ❑

RECRUITING

GOING TO THE CHAPEL

Ronald Sandmeyer, CEO of Sandmeyer Steel Co., a 160-employee stainless-steel processor in Philadelphia, was finding it harder and harder to locate qualified employees to work in his plant, until he turned to a higher authority—his local churches. "Generally speaking, people with a sense of religion have close family ties and a strong code of ethics, and that's two positives there," says Sandmeyer.

Since beginning the practice last fall, Sandmeyer has hired every one of the 10 people local ministers have sent his way. He's so thrilled with the results that he's formed a network of three local churches. "The ministers sift out the best candidates," he observes. "They don't send loafers or drifters, just solid citizens." ❑

GOING PUBLIC

What's the most challenging aspect of an IPO?

PRE-OFFERING CHALLENGES	CEO	CFO
Controlling IPO expenses	90%	80%
Market conditions	95%	90%
Registration-statement preparation	95%	89%
POST-OFFERING CHALLENGES	CEO	CFO
Investor communications	90%	73%
Proxy solicitation for annual meeting	70%	61%
Public disclosures	65%	58%

Source: "The Class of 1988," survey of 23 CEOs and 46 CFOs of newly public companies, Carter Valin Pollen, New York City, 1989

SUPPLIER RELATIONS

QUALITY BOUNCES BACK

It's hard to keep employees motivated, much less a vast network of suppliers. But Harold Plumley, founder of a $70-million industrial-rubber manufacturer, has a solution: a dose of old-fashioned competition.

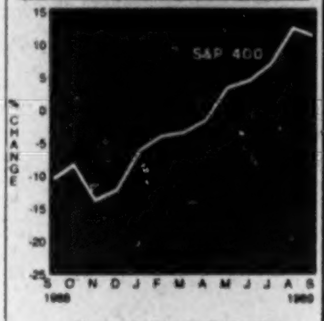
Every May since 1983 Plumley has invited the top 40 suppliers of Plumley Cos. to a state park in Tennessee for a two-day extravaganza that costs the company $20,000. It features a banquet, golf tournament, magic show, and most important, an awards ceremony. Four prizes are given for outstanding achievement in quality, cost, technology, and market support. "We explain exactly why these suppliers are winners, hoping the others will shoot for those goals next year," says Plumley. His hopes just may have come true. Returns to suppliers have dropped almost 2%, and quality improvements have lowered production waste by another 2%. ❑

HANDS ON (continued)

Reported by Paul B. Brown, John Case, Elizabeth Conlin, Joshua Hyatt, Teri Lammers, and Martha E. Mangelsdorf

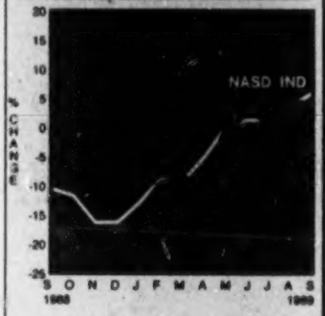
INVESTING IN GROWTH COMPANIES

INC. vs. CONSERVATIVE AVERAGES



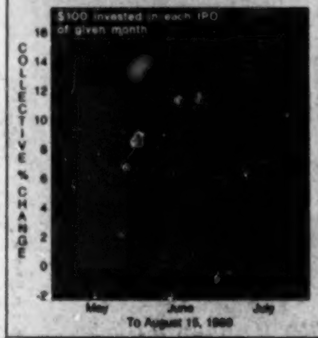
All averages start at 0 in October 1987.

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987.

IPOs IN THE AFTERMARKET



INITIAL PUBLIC OFFERINGS: AUGUST 1989

O-T-C sym.	Company	Business/product	Offering Size ($mil.)	 Price	First aftermarket bid	Underwriter
AWT[a]	**Air & Water Technologies**	Provides environmental-treatment svcs.	68.00	17.00	17⅝	Kidder Peabody
ASFN	**Allstate Financial**	Provides financial svcs.	6.18	6.50	6⅝	Josephthal
BZMT	**Bizmart**	Retails discount office supplies	34.00	10.00	9⅝	Alex. Brown
CHT[b]	**Chart House Enterprises**	Operates restaurant chain	40.50	13.50	14⅛	First Boston
COFI	**Charter One Financial**	Bank holding co.	15.57	16.63	17	Merrill Lynch
GEG[b]	**Grace Energy**	Energy exploration	65.20	22.00	22¼	Merrill Lynch
TBI	**Image Bank**	Stock-photo agency	10.73	8.25	8¼	Rosenkrantz
NEOG	**Neogen**	Agricultural biotechnology	6.00	5.00	5	Roney & Co.
NIIS	**New Image Industries**	Computer imaging	6.50	6.50	9⅝	H. J. Meyers
OPOAU	**Office Products of America**	Retails discount office supplies	8.00	5.00[c]	5½	D. H. Blair
OPJ[b]	**Ogden Projects**	Operates waste-to-energy facilities	35.00	14.00	16⅝	Merrill Lynch
PXLS	**Phoenix Laser Systems**	Mfrs. medical lasers	3.00	6.00[d]	8¼	Thomas James
PNFI	**Pinnacle Financial Services**	Thrift holding co.	6.90	34.50	36½	Roney & Co.
SIMU	**Scientific Imaging Instruments**	Diagnostic-imaging systs.	2.40	3.00[e]	4⅛	Fahnestock
STEC	**Serv-Tech**	Provides specialty maintenance svcs.	16.90	13.00	16	Alex. Brown
SSIF	**Southeastern Savings Institutions Fund**	Closed-end fund	24.00	12.00	12	Interstate
SRSI	**Specialty Retail Services**	Distr. cosmetics	2.90	2.00	2¹¹⁄₁₆	Werbel Roth

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on AMEX; [b] trading on NYSE; [c] units of 3 common + 3 warrants; [d] units of 6 commn + 3 warrants; [e] units of 1 common + 1 warrant. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York NY 10038

STREET TALK Nicely recovered from the Crash of '87, the charts on this page look the picture of health. But they could be accidents waiting to happen—again. What also have recovered their pre-Crash status are computer programs, now widely considered the runway fuel of the meltdown. The number and variety of stock indexes tied to automated trading has swelled well beyond the workhorse S&P Index, which involves 500 popular stocks, and the Major Market Index, which includes 17 of the 30 Dow Industrials. Today there are baskets made up exclusively of, for example, speculative stocks or semiconductors. Such programs can be manipulated on considerably less down payment than the SEC requires of conventional trading, and constitute a good piece of change for the major exchanges. No wonder they've yet to institute effective safeguards against public rape by computer. —*Robert A. Mamis*

CHARTS: MEDIA POWER

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THE MAGAZINE FOR
GROWING COMPANIES

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500

AMERICA'S FASTEST-GROWING PRIVATE COMPANIES

DECEMBER 1989 VOL. 11 NO. 12

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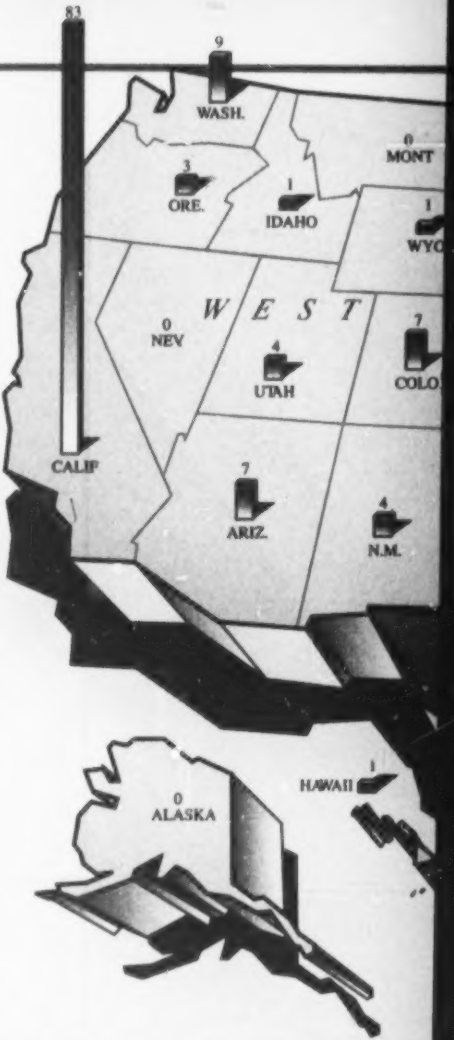
WHERE THE GROWTH IS

THE 1989 INC. 500

AMERICA'S FASTEST-GROWING PRIVATE COMPANIES



BY JOHN CASE

If there had been an INC. 500 back in 1810—maybe in those simpler days it would have been an INC. 50—Eli Terry's company would surely have made the list. The Connecticut clock maker had started his business only a few years earlier, but by 1810 he was cranking out an unheard-of 3,000 clocks a year.

Worth an article, no doubt. Sent to investigate this fast-growth company, an INC. reporter of the day would have come back astonished. This guy Terry doesn't build clocks to order, like everyone else; he makes them first, *then* he sells them. His 12 workmen use high-tech, water-powered machinery to turn out big batches of parts. And—get this—his clocks are sold to customers by a huge network of Yankee peddlers, as far south as Richmond and as far west as Buffalo. Some of the peddlers don't even ask for money until their next visit.

In 1989 we tend to be jaded about such things. But in 1810 factory-style production and nationwide, buy-now-pay-later marketing were harbingers of a business revolution. From such seeds came the mass-production economy of the late nineteenth century.

Which makes you wonder: who are the Eli Terrys of today? Where are they located, and what businesses are they in? What can the companies they run tell us about tomorrow's business landscape?

Welcome to this year's list of the 500 fastest-growing privately held companies in America. It has become a truism to say that the business marketplace is undergoing convulsive change. Yet here are 500 enterprises that—far from being swamped by economic upheavals—have somehow managed to take advantage of them, to get out in front, to grow at stunning speed despite ever-more-intense competition. Just perusing the list, as we'll see below, tells us much about how the U.S. economy is evolving. And as for running a company—well, like Terry, the chief executives of the INC. 500 have learned to manage for the marketplace of the future rather than that of the past. We'd be poor students if we couldn't take home a few pointers from their experience.

INC. 500: TOP 10 STATES BY POPULATION

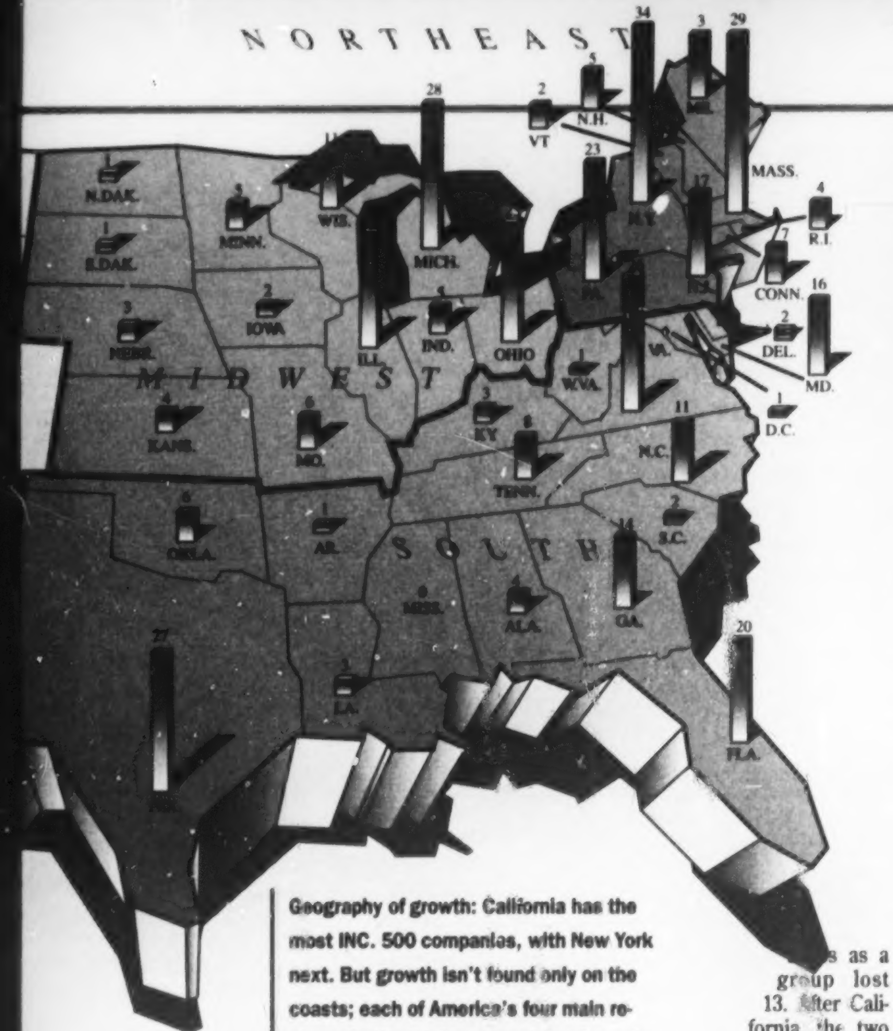
(Companies per million residents)

1.	Massachusetts	4.92
2.	New Hampshire	4.61
3.	Virginia	4.22
4.	Rhode Island	4.03
5.	Vermont	3.59
6.	Maryland	3.46
7.	Delaware	3.03
8.	Michigan	3.03
9.	California	2.93
10.	New Mexico	2.65

So choose your curriculum. The profiles beginning on page 125 showcase the strategies that got some of this year's winners where they are today. The story of this year's #1 company—Cogentrix Inc.—begins on page 78. The list itself begins on page 87, and there's an index on page 83.

First, though, consider everything these 500 companies tell us about our new economy—and about where Eli Terry–like growth is taking place in modern America.

MAPS: DALE GLASGOW



Geography of growth: California has the most INC. 500 companies, with New York next. But growth isn't found only on the coasts; each of America's four main regions (further broken down into nine subregions; see table, above right).

THE INC. 500: BY REGION

(Companies per region)

NEW ENGLAND	50
MIDDLE ATLANTIC	74
EAST NORTH CENTRAL	89
WEST NORTH CENTRAL	22
SOUTH ATLANTIC	93
EAST SOUTH CENTRAL	15
WEST SOUTH CENTRAL	37
MOUNTAIN	24
PACIFIC COAST	96

WHERE THE GROWTH IS: BY REGION

Point one: this is a big country, with booming growth appearing all over the map. Divide the United States into its four main sections—Northeast, Midwest, South, and West—and you'll find something approximating one-quarter of the list in each one. The South is the regional winner, with 145 companies. It's followed by the Northeast (124), the West (120), and the Midwest (111).

Over the past five years, however, both the South and the West have lost ground relative to the other two regions—which leads to some surprising conclusions about the geography of growth.

■ The hot coast these days is the Atlantic, not the Pacific. California is—as always—the single-state leader, with 83 companies, down 3 since our 1984 list. But New England, the Middle Atlantic states, and the South Atlantic states rack up 217, a gain of 12 over five years ago. New England alone gained 13 winners since 1984, while Pacific Coast s as a group lost 13. After California, the two leading states are New York, with 34 companies, and Massachusetts, with 29.

■ Adjusting for population, the tilt toward the East becomes even more pronounced. Seven of the top 10 states are on the East Coast, while California drops to #9. Staid New England has half again as many winners per million residents as the Pacific Coast states. Going back to those four main regions, the Northeast is now the hands-down winner, with the South bringing up the rear.

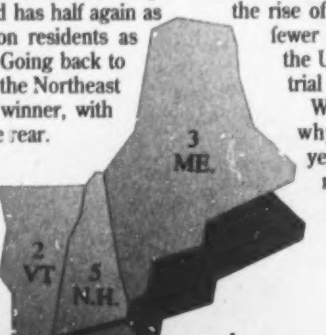
■ Something remarkable is happening in what used to be called the Rust Belt. Ohio, Indiana, Illinois, Michigan, and Wisconsin have 89 companies among them, up from 75 in 1984. Michigan alone added 18 listees in five years, including 6 since last year. "We're seeing a lot of spin-off activity from large corporations, both in manufacturing and services," says John E. Jackson, a professor at the University of Michigan who's an expert on the state's economy. "And the state government has been instrumental in supporting that kind of entrepreneurship."

Only a few states—Alaska, Mississippi, Montana, and Nevada—didn't make the list at all. Sparsely populated Wyoming made it for the first time in a few years, thanks to Moose's Welding & Construction (#368). Gardener's Supply (#310) and New England Builder (#463) put tiny Vermont on the list, also for the first time in a while. Maine has three INC. 500 companies this year; from 1983 through 1987 it had none at all.

WHERE THE GROWTH IS: BY SECTOR

The economic story of the past decade—you can read about it in half a dozen books, not to mention magazines and newspapers—has been the decline of U.S. manufacturing and the rise of the service economy. Today fewer than one-fifth of workers in the United States are in the industrial sector.

Which doesn't exactly explain why 33%—one-third—of this year's INC. 500 companies are manufacturers, up from 26% a year ago and 24% two years ago. Run your eye over



Booming New England boasts 50 winners, up 13 from five years ago. The leader in companies per million residents: Massachusetts

THE INC. 500: BY SECTOR

Service	41%
Manufacturing	33%
Retail	10%
Construction	8%
Distribution	8%

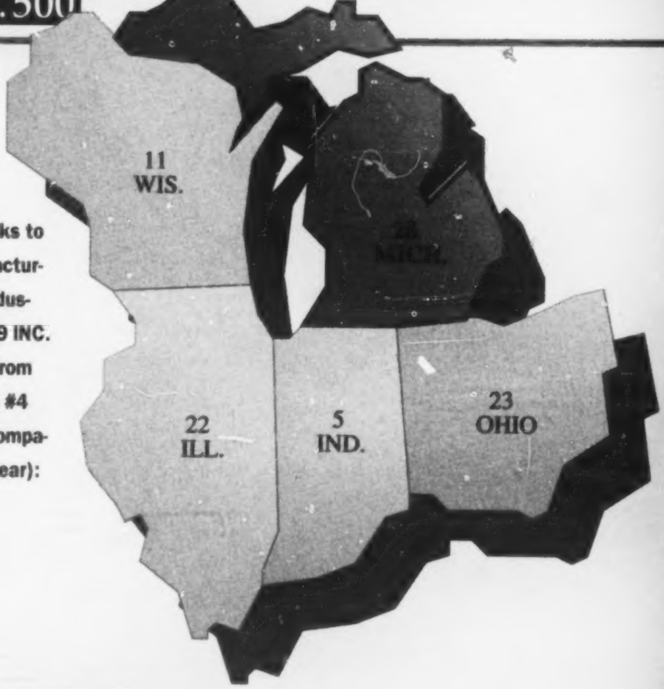
the list and you'll spot companies making auto accessories, data-communications equipment, model racing cars, composite panels, electronic motion controls, hazardous-waste containers, and dozens of other products, handcrafted and high tech, industrial and consumer.

What's going on here? In fact, the story of what is and is not made in America is more complex than it appears. For one thing, fast-growing companies are still pioneering in numerous technology-based fields. Venture Lighting International (#63) makes state-of-the-art metal-halide arc-discharge lamps. Modular Instruments (#143) makes sophisticated signal-processing recorders for medical research. Other microelectronics companies on the list turn out products as diverse as flight simulators and CAD/CAM systems as well as "ordinary" products such as computer peripherals and software.

Then too, aggressive U.S. entrepreneurs are learning to compete internationally. Quad Systems (#160) makes automated machinery for the manufacture of surface-mount printed circuit boards—and competes head-to-head with the big Japanese companies that first commercialized this new technology. Quad last year did more than one-third of its business overseas, mostly in Asia. In women's and children's clothing, an industry devastated by imports, David Alon Enterprises (#217) thrives by offering turnaround times foreign producers can't match.

On the face of it, there's not much news in the list's other sector divisions. Distribution and services are down a percentage point or two from last year, elbowed aside by the growth in manufacturing, while retailing is holding steady at 10% and construction at 8%. Even so, we sometimes wonder how much we have to bend reality to come up with any statistics at all.

Take Phil Pachulski's Prime Technology (#329), in Grand Rapids. Prime is a dealer in machine tools, so it's counted under distribution. But Pachulski—who lets little grass grow under his feet—also manufactures specialty cutting tools and provides engineering services to clients needing help in systems design. Distribution? Manufacturing? Service? You tell us.



Rusty no more: Thanks to the revival of manufacturing, the five-state industrial heartland has 89 INC. 500 companies, up from 75 in 1984. Ranking #4 overall (and up six companies just since last year): Michigan

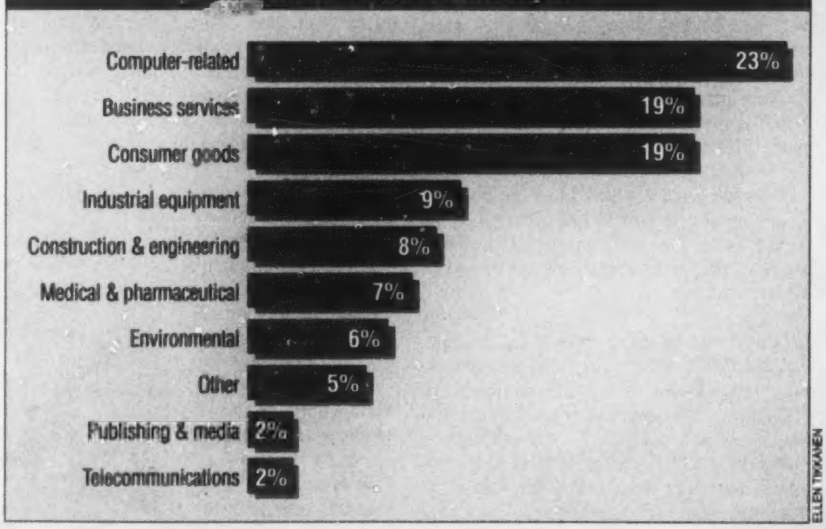
WHERE THE GROWTH IS: BY INDUSTRY

Think "fast growth" and your mind runs to glitzy technology companies, the Digital Equipments and Sun Microsystems of tomorrow. Indeed, nearly a quarter of our list this year is in the computer-related category—up from one-sixth five years ago—and there are plenty of high-tech businesses sprinkled through the list's other classifications. But the vast majority of INC. 500 companies don't depend on leading-edge science and engineering; they teach a different kind of lesson about where fast growth is to be found.

Big social changes bring big opportunities for growth. Take health care, which must be a candidate for fastest-changing industry in America. It has been a slippery slope for many businesses, including some of the nation's largest hospital chains and insurance companies. But one company's slip is another's toehold: INC. 500 companies run health-care centers, provide diagnostic testing, sell data services to physicians, provide contract nursing, rent specialty medical equipment, manufacture electrocardiography instruments—the list goes on and on.

Or take the 29 environmental-protection companies on the list, which have been broken out into a separate category for the first time this year. While some businesses complain about all the new environmental regulations and requirements, others are, well, cleaning up. INC. 500 companies do everything

THE INC. 500: BY INDUSTRY



ELLEN TIKKANEN

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Perennial winner California is home to 83 listees. But West Coast states have lost ground to the East and Midwest.

from removing asbestos to monitoring agricultural pesticide residues.

More and more, ours is an economy of niches. Roadshow Services (#198) provides trucks and drivers for performers. Information America (#93) puts court records on-line so that lawyers can consult them instantly. Backroads Bicycle Touring (#331) markets van-supported bike tours. In the past, companies grew by offering standardized products to ever-wider markets. Today they grow by carving out smaller, more specialized niches—and filling them better than anyone else. The diversity is dazzling. If you could somehow shop at an INC. 500 mall, you could pick up Australian wines, model racing cars, archery equipment, and handcrafted embroidery. You could buy trendy hair-care products, watch a parent-education video, and nibble on some Italian fast food. (Frivolities? Maybe. So were clocks in Eli Terry's day. The farmers who bought from Terry's peddlers didn't need to know what time to milk the cows or when to turn on Cosby.)

There's "churning" even in the most mature of industries. Would you expect to find a distributor of tobacco and confectionery products on the INC. 500? What about a dealer in recreational vehicles? Yet there they are: printers and photographers, public-relations agencies and photocopying centers, all of them in run-of-the-mill businesses and all of them somehow growing much faster than their competitors.

If we compiled a list of all the companies that went broke last year, we'd find many such businesses on that list as well. Moral: growth is often where you make it, not just where you find it. Plenty of companies were selling toys before Toys 'R' Us came along. And metropolitan Cleveland had plenty of travel agencies before Cynthia Bender's Meridian Travel (#175) was born. Even so, Meridian grew from $625,000 to more than $10 million in five years.

THE AVERAGE COMPANY

Sales growth	1,407%
Sales (1988)	$15,013,456
Sales (1984)	$996,436
Employees (1988)	135
Employees (1984)	20
Productivity* (1988)	$111,211
Productivity* (1984)	$49,822

*Sales/employee

WHERE THE GROWTH IS: COMPANIES

Five years ago, the typical company on this year's list was the modern equivalent of Eli Terry's clockworks: 20 employees, less than $1 million in sales. A majority were at least modestly profitable even then, but more than one-third reported break-even or loss. Then the growth began.

Today the typical company registers more than $15 million in sales. That figures out to an average increase of 1,407% since 1984, or a 97% compound annual growth rate. It has 135 employees and sales per employee of more than $111,000. Profitability? Nearly 90% of this year's winners are making money, with almost 20% reporting profits of more than 11% of sales.

So much for averages. As with everything else relating to the INC. 500, the real interest is in the diversity. Despite the constraints of the list—$100,000 minimum sales five years ago, $25 million maximum—the differences are dramatic.

The fastest grower—#1—is Cogentrix, an owner and operator of energy cogeneration

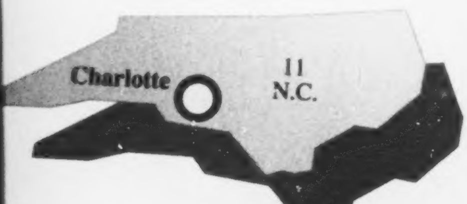
THE INC. 500: AVERAGE COMPANIES BY SELECTED INDUSTRY

	BUSINESS SERVICE	COMPUTER RELATED	CONSUMER GOODS	MEDICAL/ PHARMACEUTICAL	ENVIRONMENTAL
Sales growth	1,066%	1,586%	1,147%	1,826%	2,774%
Sales (1988)	$10.3 million	$20.4 million	$11.3 million	$14.6 million	$34.7 million
Sales (1984)	$878,876	$1.2 million	$908,417	759,879	$1,207,482
Employees (1988)	108	111	197	251	143
Employees (1984)	13	16	33	45	15
Productivity* (1988)	$94,911	$183,429	$57,523	$58,318	$242,642
Productivity* (1984)	$67,606	$75,476	$27,528	$16,886	$80,499

* Sales/employee

facilities, up from 1984 sales of $134,000 to 1988 sales of nearly $130 million. Growth rate: 96,716% (see "Full Steam Ahead," page 78). Down at the bottom, Infotec Development grew a paltry 573%—61% a year, faster than most businesses *ever* grow—hitting more than $46 million in 1988 sales.

The revenue leader: American Central Gas (#12), last year's #1, with close to $325 million in sales. Seven other companies on the list registered more than $100 million in sales, taking them well beyond the realm where most people would consider them small. At the other extreme, tiny Tom Walz (#449) chalked up revenues of only $754,000. Yet Walz, which makes saw tips and does related metallurgical and medical research out of Tacoma, Wash., still hit a 654% growth rate.



Home of #1: Sales-growth leader Cogentrix—revenues of $130 million last year, only $134,000 five years ago—makes its home in Charlotte, N.C.

This year's Most Employees award—if there were one—would go to Landmark Hotel (#330), in Topeka, which owns or leases and operates 23 hotels and six restaurants with 3,500 employees. Landmark is also the list's acquisition leader, with 29—which is 29 more than most INC. 500 companies recorded. (More than 400 companies made the list without a single acquisition.) The Fewest Employees award? Corporate Book Resources (#275) and Pauli's Discount Optics (#452), with one each. Corporate Book's Richard Weigen runs his business-oriented book-ordering service by subcontracting order fulfillment and other work. Frederick Pauli Jr. sells telescopes and other optical equipment with some volunteer help from his retired parents. "Hiring a second person is the death of entrepreneurial companies," says the cautious Pauli, "because the hired person can never be as committed as the founder is."

On average, the INC. 500 companies this year are 8.4 years old—not surprising, since they must be at least 5 years old to qualify, and those that are still small in the base year have a built-in advantage when growth rates are calculated. But if your company is older than that, don't give up. Draughon Training Institute (#388) was founded 98 years ago. CEO Terry Shultz's father bought the career school in 1972, and she took it over 10 years ago. The secret to Draughon's recent growth: "Relocation to a better area of town and an aggressive marketing campaign," says Shultz.

THE INC. 500: BY PROFITABILITY

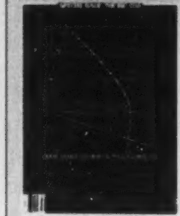
(Aftertax income as a percentage of sales)	Base year 1984	Current year 1988
16% or more	11%	10%
11% to 15%	6%	9%
6% to 10%	16%	23%
1% to 5%	29%	46%
Break-even	6%	4%
Loss	32%	8%

As 1989 comes to a close, the United States is winding up the seventh consecutive year of a growing economy; for most businesses in most parts of the country, times are still pretty good. But the story told by the INC. 500 isn't just of growth, it's of change. New technologies, new markets, new niches, and—as you'll see on the pages that follow—new ideas about how to run a company. You can grow along with the economy just by doing things the ordinary way. You make the 500 by doing something extraordinary.

Which, of course, is what clock maker Eli Terry did. You might even say he was ahead of his time. ❑

CLASS NOTES

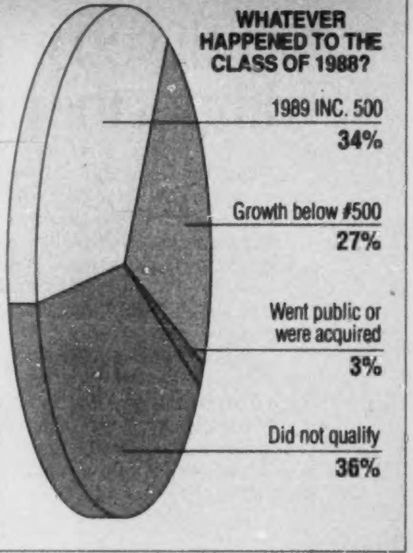
It's hard enough to make the INC. 500 once, but some companies just keep coming back



Think of it as a game of musical chairs, with the tempo getting faster the longer you play. Say your company makes the INC. 500 one year. To make it the next year, you also have to grow at breakneck speed—but from a new, higher starting point. That's why roughly two-thirds of any year's winners don't appear on the next year's list. Granted, many companies don't qualify for other reasons, such as a decline in sales. But plenty keep on growing at a good clip, just not quite fast enough.

That built-in obstacle makes it all the more amazing that some companies turn up on the INC. 500 year after year after year. On the 1989 list: 37 three-time repeaters and 15 four-time repeaters plus—yes, you're reading this right—2 six-time winners. Who are these virtuosos of growth? Encore Marketing International (#312) markets the Encore travel card to consumers and businesses; the company's chart goes straight upward, from $123,000 in sales and 6 employees in 1979 (when it was called American Leisure Industries) to nearly $70 million and 900 employees last year. The ERM Group (#411), an environmental-services consulting firm, is up from $318,000 and 8 employees in 1978 to $117 million and 910 employees last year. ERM fell off the list once, in 1986; even then, though, it was still growing.

Anyway, here's a two-word secret to winning that game of musical chairs: forget growth. "Our objective isn't to obtain high growth but to be the best in the business and have a good time doing it," says ERM chief executive Paul Woodruff. "Growth is the result, not the goal."



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PETER VIDOR

John Lau
Lautek Corp.
Sells computers to corporations

GROWING UP

Mother Teacher, garment factory worker
Father Salesman, waiter in Chinese restaurant
Hometowns Hong Kong; New York City's Chinatown
Education M.S. physics
Jobs Vice-president of global data network at Shearson/American Express

GETTING HERE

"I had a lot of ideas in my mind, and I wanted to do them much faster than my management, so I decided, hey, I really need to do things on my own. So I started Lautek in the basement of my house."

MY COMPANY, MY SELF

Inspiration "It seems I have no choice. To drive as much as possible is part of my inner self."
Family in Business Wife, cofounder and VP; brother-in-law, chairman
What's Changed "When I talk to end users—or sometimes to purchasing people—they don't see me as the regular white-man majority. That continues today. It's not frustrating, just part of life."
Lose Sleep Over Cash flow
Workweek 75 hours
Last Vacation Haven't taken a week since starting company
Use a PC Yes
What's Next May go public

FOOTNOTE

"There's so much I can do; looking back at things, I could have done so much better. In work and life, too. But there's no use in looking back. I've liked the momentum. There was nothing, then something was created—something to the best of my ability. That's probably the driving force."

THE 500

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]
1.	**Cogentrix** Charlotte, NC Owns & operates cogeneration facilities	96,716%	$129,734	$134	D	F	365	12	1983
2.	**Ocean State Coordinated Health Svcs.** Warwick, RI Provides cost-managed health-care svcs.	45,581	82,682	181	D	A	133	20	1979
3.	**CEBCOR** (13) Chicago, IL Provides employee leasing svcs.	20,803	25,083	120	D	D	49	3	1983
4.	**Adept Technology** (8) San Jose, CA Mfrs. industrial robots	15,471	30,831	198	E	F	251	46	1983
5.	**Liuski International** Melville, NY Distr. computers & accessories	15,420	68,133	439	D	E	150	5	1984
6.	**Devon Direct Marketing & Advertising** Malvern, PA Provides advertising svcs.	11,974	45,277	375	B	A	46	3	1983
7.	**Bushman Press** (36) Provo, UT Provides commercial printing svcs.	11,223	17,437	154	A	A	300	10	1982
8.	**OSP Consultants** Sterling, VA Provides telecomm., engineering, & construction svcs.	10,981	11,857	107	B	A	304	3	1984
9.	**Hall-Kimbrell Environ. Services** (34) Lawrence, KS Provides environmental engineering & testing svcs.	10,774	44,476	409	A	C	700	5	1982
10.	**American Medical Imaging** Horsham, PA Provides diagnostic ultrasound testing svcs.	10,573	11,100	104	D	F	184	3	1984
11.	**Galney Transportation Services** Grand Rapids, MI Provides long-haul, dry-van trucking svcs.	10,455	15,938	151	D	F	197	3	1984
12.	**American Central Gas** (1) Tulsa, OK Gathers, processes, treats, & mkts. natural gas	10,255	324,309	3,132	D	C	109	8	1983
13.	**KTI** (43) Guttenberg, NJ Develops alternative energy sources	9,143	22,923	248	F	F	135	4	1982
14.	**Forma-3 International** Canton, OH Operates weight-control facilities	9,106	14,730	160	A	A	100	25	1982
15.	**Vitelic** San Jose, CA Supplies semiconductor memory	8,894	39,935	444	A	F	220	27	1983
16.	**DIANON Systems** Stratford, CT Provides products & data svcs. to physicians	8,434	11,947	140	C	F	120	35	1983
17.	**Lautek** Somerset, NJ Sells personal computers	8,264	42,993	514	D	D	139	7	1983
18.	**Mercury Computer Systems** Lowell, MA Produces processors for computer applications	7,995	11,818	146	C	F	103	17	1983
19.	**NAC** Richardson, TX Mfrs. intelligent network platforms	7,652	26,745	345	A	F	147	16	1984
20.	**Oldenburg Group** (172) Milwaukee, WI Mfrs. diversified products	7,622	90,969	1,178	C	C	860	17	1943
21.	**MEDLINC** New York, NY Provides home health-care svcs.	7,177	12,080	166	D	B	73	6	1984
22.	**TAMSCO** Calverton, MD Develops software & engineering support systs.	7,103	13,542	188	D	A	256	12	1982
23.	**Softmart** (3) Exton, PA Resells microcomputer software & peripherals	7,099	44,560	619	D	F	125	14	1982
24.	**EMS** Phoenix, AZ Remfrs. electrical & mechanical equipment	6,949	9,164	130	D	F	90	3	1984
25.	**Logistic Systems Architects** Sacramento, CA Provides logistic mgmt. & planning svcs.	6,512	15,802	239	D	F	324	12	1983

ANDREW BAUSK

Eric Kriss
MediVision Inc.

Operates 30 eye health-care centers

GROWING UP

Mother Marriage counselor
Father Physician and professor
Hometown Palo Alto, Calif.
Education B.A music, M.B.A.
Jobs Started a music magazine; wrote music books; editor at a weaving magazine; consultant at Bain & Co. and cofounded Bain's VC arm

GETTING HERE

"Bain studied this business for Bausch & Lomb, which decided not to pursue it; I was at Bain Capital, read the business plan we put together—which now had no company behind it—and decided to buy the idea from Bausch."

MY COMPANY, MY SELF

Inspiration Ben Franklin—his balanced approach to life
Family in Business None
What's Changed "We spent the first two years intensely following competitive developments, organizing a strategy to make it more difficult for competitors to enter. I'm not concerned about that anymore. If a company started next week it wouldn't bother me."
Lose Sleep Over Government regulations, especially Medicare reimbursement
Workweek 50 hours
Last Vacation "I don't think I've taken two consecutive weeks off since eighth grade."
Use a PC Yes, and also at home
What's Next Have plans to sell company by the end of the year

FOOTNOTE

"I'm not a workaholic. I never work on weekends or at night. I always spend time with the family. I'm amazed at people who say they work 16 hours a day, because you know what? I think I've probably got 4 or 5 good hours a day."

Company (1988 rank)	1984–88 Percent	'88 sales	'84 sales	[illegible]		[illegible]		[illegible]
26. Revelation Technologies New York, NY Supplies database mgmt. systs.	6,306%	$9,353	$146	D	C	105	3	1983
27. Sampler Publishing St. Charles, IL Provides publishing svcs.	6,266	7,257	114	A	E	20	2	1984
28. Energy Fuels Development Portales, NM Mfrs. & sells ethanol & related products	6,206	19,927	316	F	D	59	3	1982
29. Hertzberg Rare Coin Investments Tacoma, WA Buys & sells rare U.S. coins	5,976	6,076	100	D	C	6	1	1984
30. Traveling Software Bothell, WA Develops microcomputer software	5,930	6,090	101	B	F	55	10	1983
31. Carpenter HealthCare Systems Maryland Heights, MO Provides health-care mkt. & mgmt. svcs.	5,825	6,043	102	D	F	110	3	1984
32. Project Development Group Pittsburgh, PA Provides asbestos-abatement svcs.	5,758	11,072	189	C	F	150	5	1984
33. Executive Software Glendale, CA Develops & mkts. syst. software	5,653	6,041	105	C	A	50	2	1981
34. Metro Computing Troy, MI Remkts. computer systs. & software products	5,468	24,333	437	D	C	25	12	1976
35. MediVision Boston, MA Operates vision health-care centers	5,335	50,163	923	D	F	500	7	1984
36. American Marketing Works Gardena, CA Mfrs. & licenses clothing	5,177	43,116	817	B	C	275	15	1984
37. J.P. Rhoades Development (21) Santa Ana, CA Develops real estate; builds houses	5,138	34,047	650	C	C	18	18	1982
38. Progress Software Bedford, MA Develops & mkts. database mgmt. systs.	5,093	15,371	296	C	F	160	22	1981
39. Artisoft Tucson, AZ Develops & mkts. hardware & software	5,092	6,750	130	A	F	40	1	1982
40. HAZCO Services Dayton, OH Supplies hazardous-waste cleanup products	4,843	6,327	128	C	A	27	3	1981
41. Loredan Biomedical Davis, CA Mfrs. diagnostic & therapeutic equipment	4,617	15,095	320	D	F	69	2	1984
42. Arena & Co. Wallingford, PA Provides construction & design mgmt. svcs.	4,561	19,623	421	C	C	40	7	1981
43. HME Construction Opelika, AL Provides asbestos-abatement svcs.	4,307	7,756	176	D	D	65	12	1983
44. Quintron Chantilly, VA Designs & mfrs. flight simulators	4,213	13,587	315	D	F	170	8	1984
45. Software Associates Emmaus, PA Integrates computer systs.	4,150	9,434	222	D	F	35	2	1984
46. Neogen Lansing, MI Develops agricultural residue-control products	4,108	4,797	114	F	F	85	6	1982
47. Welcom Software Technology Houston, TX Mfrs. project mgmt. software	4,009	4,191	102	C	D	23	2	1984
48. Esco Energy Tulsa, OK Explores, produces, & transports natural gas	3,988	144,319	3,522	D	A	76	25	1981
49. Professional Business Schools (234) St. Louis, MO Operates private vocational schools	3,937	5,853	145	D	F	233	12	1976
50. Internet Systems Chicago, IL Develops & mkts. computer software applications	3,907	10,619	265	F	F	110	53	1981
51. Chariot Eagle Ocala, FL Mfrs. RV park & vacation homes	3,901	10,522	263	D	F	89	13	1984
52. Arnet Nashville, TN Mfrs. microcomputers and peripherals	3,874	7,154	180	B	F	45	6	1983
53. Modern Technologies Dayton, OH Provides technical svcs.	3,860	8,038	203	C	A	130	1	1984
54. TME Houston, TX Develops & manages outpatient diagnostic clinics	3,788	6,532	168	D	B	76	1	1983
55. Attronica Computers Washington, DC Sells computer products	3,766	8,118	210	F	F	32	2	1983
56. Software Spectrum (15) Dallas, TX Resells microcomputer software	3,765	58,783	1,521	D	D	110	7	1983
57. Kenfil Distribution (107) Van Nuys, CA Distr. microcomputer software	3,725	71,754	1,876	D	D	82	39	1983
58. Northgate Computer Systems Plymouth, MN Assembles & sells personal computers	3,724	31,966	836	C	D	246	7	1983
59. Auburn Merchandise Distributors Auburn, MA Distr. tobacco & confectionery products	3,642	35,512	949	D	D	66	6	1984
60. Cencom Cable Associates (362) Chesterfield, MO Manages cable-TV systs.	3,565	42,914	1,171	F	C	407	25	1982

PETER VIDOR

Ernest Provetti
Trinity Products Inc.

Manufacturer of motors for model racing cars

GROWING UP

Mother Homemaker
Father Longshoreman
Hometown Brooklyn, N.Y.
Education B.A. philosophy; seminary student
Jobs Catering, rental car agency

GETTING HERE

"Building engines was just something to subsidize my own hobby. I didn't expect to make a living at it. Eventually I talked my mother into letting me pull the furniture out of the house, and I built a factory in our apartment. My mother still lives in Brooklyn—with furniture."

MY COMPANY, MY SELF

Inspiration Donald Trump. "I'd give up half my net worth to have lunch with him."
Family in Business None
What's Changed "What mattered back then was ego. It was driving me just to win the race. Now, I read everything I can get my hands on to learn about business."
Lose Sleep Over Wondering when the racing fad will fade
Workweek 50 hours
Last Vacation September '88, to Florida and Hawaii. "My first vacation in six years."
Use a PC Yes, a laptop
What's Next Opening a nightclub/restaurant in New York City

FOOTNOTE

"I took theology, philosophy, Greek, and Latin for 12 years; I didn't know *The Wall Street Journal* from a third-grade catechism. And today I hooked up my laptop into CompuServe so I could check my stock quotes. If someone had told me a few years ago that I'd be checking a few hundred thousand dollars of stock prices, I would have said you're crazy."

61.	**InfoCision Management** Akron, OH Provides direct-mkt. svcs.	3,557%	$6,765	$185	A	F	202	3	1982
62.	**National Safety Associates** Memphis, TN Mfrs. & sells water-filtration products	3,420	74,404	2,114	D	F	267	35	1970
63.	**Venture Lighting International** Solon, OH Mfrs. & sells state-of-the-art lamps	3,402	33,972	970	E	F	660	143	1983
64.	**Mobile Technology** (74) Los Angeles, CA Provides medical, diagnostic, & treatment svcs.	3,361	51,015	1,474	C	F	425	15	1983
65.	**GammaLink** Palo Alto, CA Provides PC-facsimile communications svcs.	3,330	3,602	105	C	F	38	3	1984
66.	**XA Systems** Los Gatos, CA Develops & mkts. software	3,311	13,100	384	B	F	115	16	1982
67.	**R.W. Lynch** San Ramon, CA Provides marketing svcs.	3,263	8,106	241	D	F	48	6	1984
68.	**Concept Omega** (20) Somerset, NJ Develops computer software	3,236	12,978	389	D	F	114	12	1982
69.	**Chico's** Fort Myers, FL Sells women's clothing	3,204	6,244	189	A	C	90	4	1983
70.	**Statistica** (27) Clarksville, MD Provides systs. & software engineering svcs.	3,176	12,284	375	D	F	180	6	1977
71.	**Mangano Co.** Visalia, CA Develops real estate; provides construction svcs.	3,162	15,820	485	B	F	25	2	1978
72.	**Bertucci's** (157) Woburn, MA Operates restaurant chain	3,157	11,400	350	B	F	200	10	1981
73.	**Philly's Finest** Tucson, AZ Owns & franchises Philly's Finest restaurants	3,079	3,370	106	F	F	255	17	1984
74.	**Trinity Products** Linden, NJ Mfrs. & distr. model racing cars	3,064	6,930	219	D	D	28	2	1983
75.	**Analytical Medical Enterprises** Baton Rouge, LA Provides contract nursing svcs.	3,060	6,098	193	D	D	130	5	1983
76.	**PPOM** Southfield, MI Provides alternative health-care delivery systs.	3,016	3,147	101	D	F	40	2	1984
77.	**MediQual Systems** (57) Westboro, MA Provides health-care database svcs.	2,963	9,525	311	C	F	121	15	1980
78.	**Century Computer Marketing** Marina Del Rey, CA Distr. used & refurbished computer peripherals	2,837	17,592	599	C	B	125	1	1984
79.	**Step Ahead Investments** West Sacramento, CA Operates surplus variety retail stores	2,823	6,518	223	D	F	110	3	1983
80.	**RJO Enterprises** (56) Lanham, MD Provides systs. engineering svcs.	2,792	50,239	1,737	D	D	515	52	1979
81.	**Military Communications Center** Eden Prairie, MN Resells telecommunications svcs.	2,738	16,629	586	F	F	125	10	1983
82.	**Burnham Broadcasting** Chicago, IL Operates network TV stations	2,732	48,290	1,705	F	F	517	100	1983
83.	**Senior Living Centers** Pittsburgh, PA Provides long-term care for elderly	2,717	4,395	156	A	F	300	50	1984
84.	**RPM Rent A Car** (340) Inglewood, CA Provides auto- & truck-rental svcs.	2,692	10,916	391	C	C	214	12	1982
85.	**NSS** Bedford, NH Supplies branch automation systs.	2,687	14,799	531	D	B	57	8	1983
86.	**Pyraponic Industries** San Diego, CA Sells botanical growth chambers	2,642	10,528	384	A	A	52	1	1982
87.	**Horizon Data** Herndon, VA Provides syst. integration svcs.	2,621	2,775	102	D	F	38	2	1983
88.	**Progressive Peripherals & Software** Denver, CO Mfrs. & sells personal computers	2,604	5,138	190	C	D	30	7	1983
89.	**Janet Sand & Gravel** Midland, MI Produces & sells asphalt, sand, & gravel	2,598	2,995	111	D	D	29	8	1983
90.	**StarPak** Denver, CO Mfrs. software	2,591	3,579	133	D	C	81	1	1978
91.	**ICT Technologies** Redwood City, CA Distr. computer graphics hardware	2,589	15,782	587	D	D	25	5	1983
92.	**Diamon Images** Los Gatos, CA Provides electron-beam-generated photo masks	2,514	4,340	166	B	F	18	3	1983
93.	**Information America** Atlanta, GA Provides on-line public record information & svcs.	2,465	7,876	307	F	F	77	20	1982
94.	**McDATA** Broomfield, CO Mfrs. & mkts. network communications systs.	2,464	55,380	2,160	C	F	323	44	1982
95.	**FG*I** (68) Chapel Hill, NC Provides mkt. products & svcs.	2,441	10,368	406	D	D	66	6	1982

96.	**Read** (109) Middleboro, MA Mfrs. gravel-screening equipment	2,435%	$29,148	$1,150	C	C	225	35	1980
97.	**Express Services** (9) Oklahoma City, OK Franchises permanent- & temporary-help svcs.	2,378	82,766	3,340	D	E	50	12	1983
98.	**HealthStaffers** (62) Chicago, IL Provides nursing svcs.	2,364	5,593	227	A	F	241	5	1977
99.	**Midwest Wood Treating** Norwalk, OH Mfrs. fire-retardant & rot-resistant lumber	2,333	7,857	323	D	D	25	4	1983
100.	**American Oil Change** Towson, MD Franchises Jiffy Lube operations	2,326	19,653	810	D	B	360	40	1982
101.	**Cellular Service** Glendale, CA Resells mobile telephone svcs.	2,325	24,852	1,025	D	F	34	3	1984
102.	**Int'l EPDM Rubber Roofing Systems** Toledo, OH Develops & supplies roofing systs.	2,261	9,444	400	D	D	27	5	1982
103.	**Holiday Builders** Melbourne, FL Builds houses	2,249	23,700	1,009	D	C	43	6	1983
104.	**CompuAdd** (47) Austin, TX Retails personal computers & accessories	2,248	240,766	10,253	D	D	540	25	1982
105.	**Compu-Link** Clearwater, FL Mfrs. & installs cable assemblies	2,223	3,624	156	D	B	95	12	1984
106.	**Hospital Correspondence Copiers** (59) San Jose, CA Provides medical record-copying svcs.	2,177	12,797	562	B	D	400	31	1982
107.	**Creative Designs** Ossining, NY Processes veneers	2,135	3,039	136	A	F	50	10	1980
108.	**Vitronix** Westboro, MA Distr. value-added microcomputers	2,131	11,603	520	D	D	31	3	1984
109.	**Champion Mortgage** Parsippany, NJ Provides mortgage banking svcs.	2,101	9,201	418	A	A	73	4	1961
110.	**East Coast Computer Systs.** (116) Tinton Falls, NJ Sells computer systs.	2,073	9,778	450	C	C	35	7	1980
111.	**National Engineering Service** North Billerica, MA Provides technical temporary-help svcs.	2,071	16,065	740	D	F	540	40	1984
112.	**Orbital Sciences** (2) Fairfax, VA Mfrs. NASA vehicles & space-tracking systs.	2,069	56,400	2,600	F	C	405	24	1982
113.	**Western Nugget Transport** Vancouver, WA Provides interstate transportation brokerage svcs.	2,066	2,664	123	D	F	13	2	1984
114.	**JasTech** Cleveland, OH Provides information syst. consulting svcs.	2,047	3,564	166	D	A	72	1	1982
115.	**Cape Fear Insulation** Wilmington, NC Provides commercial & industrial insulation svcs.	2,047	2,383	111	C	B	53	7	1984
116.	**Harris Foods** Marietta, GA Operates Wendy's franchise	2,045	2,338	109	F	F	24	4	1984
117.	**Mesa Products** Tulsa, OK Mfrs. & sells corrosion-control materials	2,027	3,191	150	D	D	10	1	1984
118.	**WordPerfect** (71) Orem, UT Develops software	2,017	167,762	7,923	A	B	1,150	84	1979
119.	**Sterling Management Systems** (45) Glendale, CA Provides business mgmt. training & consulting svcs.	2,009	19,949	946	D	D	209	10	1983
120.	**CitiCam Video Services** New York, NY Supplies video crews to TV productions	2,005	2,400	114	A	A	11	2	1984
121.	**KETIV Technologies** Portland, OR Mfrs. CAD/CAM/CAE systs.	1,986	3,045	146	D	F	42	3	1983
122.	**Grant Wood Specialties** (191) Nampa, ID Mfrs. oak doors	1,981	3,205	154	D	F	79	6	1971
123.	**Melannco International** Chelsea, MA Mfrs. photographic albums & accessories	1,979	5,342	257	D	F	43	12	1983
124.	**Source Window Coverings** Woodinville, WA Mfrs. custom window coverings	1,969	3,393	164	D	E	70	18	1934
125.	**National Investigative Services** Hinsdale, IL Provides corporate & financial investigations	1,967	4,650	225	A	E	43	3	1983
126.	**Applied Energy Services** (282) Arlington, VA Operates independent power-production facilities	1,957	55,374	2,692	D	F	264	42	1981
127.	**Logical Operations** Rochester, NY Provides computer training svcs.	1,953	2,649	129	D	F	51	3	1982
128.	**Ambitech Design Services** Glen Ellyn, IL Provides construction engineering svcs.	1,953	4,926	240	F	F	164	14	1982
129.	**Colonel's** Owosso, MI Mfrs. & mkts. automotive replacement parts	1,945	17,093	836	A	E	140	5	1984
130.	**Wesson, Taylor, Wells & Associates** Charlotte, NC Provides computer software consulting svcs.	1,941	8,797	333	D	D	130	6	1980

ANDY GOODWIN

Andrew Doppelt
National Investigative Services Corp.

Corporate and financial investigator

GROWING UP

Mother Homemaker
Father Owned manufacturing company
Hometown Highland Park, Ill.
Education J.D.
Jobs IRS special agent; father's company

GETTING HERE

"Having come from a big bureaucracy and having worked for my father, I didn't want to put myself back in the position of being subordinate. The best way to avoid that was to be my own boss."

MY COMPANY, MY SELF

Inspiration "There are certain measurements you can use to tell whether your company is becoming a force: being invited to give speeches in places you've never heard of; getting clients you never tried to develop but who've heard of you."
Family in Business None
What's Changed "I don't do any investigations anymore. I'm strictly sales, marketing, and administration—where I think my talents lie."
Lose Sleep Over Raising money
Workweek 60 to 70 hours
Last Vacation "Can't remember."
Use a PC No
What's Next In process of merging with Laventhol & Horwath. Also talking with Hollywood producers about TV show based on the investigation business

FOOTNOTE

"I like the idea of a merger—it's going to give us a million dollars of referrals every year and a lot of money to finance growth. Plus I end up becoming a partner in an international firm."

MIKE DITZ
#151

Sheila West
Archery Center Int'l Inc.

Distributor of archery products

GROWING UP

Mother Secretary
Father Professor
Hometown Jacksonville, Fla.
Education 30 hours of college
Jobs Inspirational speaker for homemakers; homemaker

GETTING HERE

"I was at the 'empty vision' time of my life—I'd been a homemaker for 18 years, my children were teenagers. I'd shot competitive archery in high school and my husband was a hunter, so he suggested buying a compound-bow store as a stepping-stone."

MY COMPANY, MY SELF

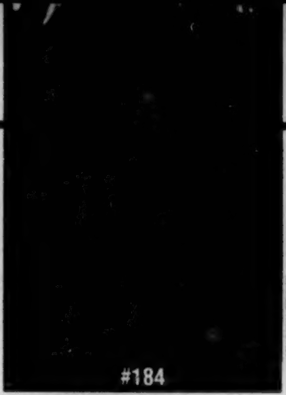
Inspiration Helping other entrepreneurs: "It stimulates me to stretch more."
Family in Business Husband, cofounder; son-in-law, purchasing agent; daughter, director of marketing
What's Changed "At first it was hard to accept I was a CEO. I mean, CEOs are people who run major companies. But I decided CEO stands for catch every obstacle and create endless opportunities, and I said OK, that's me."
Lose Sleep Over Profitability
Workweek 60 to 70 hours
Last Vacation Hawaii last fall—the first since starting ACI
Use a PC Laptop on the road
What's Next A new company for business and personal development and seminar workshops

FOOTNOTE

"My mother raised me by herself, and she was working, so I'm a survivalist. I didn't let stumbling blocks get in my way. I learned how to cook, how to be a wife, how to be a parent, so I figured, why can't I learn how to sell archery equipment?"

131.	**C.G. Enterprises** Southfield, MI Sells & svcs. microcomputer products	1,938%	$5,565	$273	D	C	30	3	1982
132.	**Telco Communications** (171) Seekonk, MA Provides promotional & fund-raising svcs.	1,933	4,351	214	D	D	27	4	1977
133.	**March-Westin** Morgantown, WV Provides construction mgmt. & contracting svcs.	1,927	2,392	118	D	D	18	2	1984
134.	**Computer Media Technology** Mountain View, CA Mfrs. & sells computer recording media	1,905	2,727	136	C	C	13	2	1984
135.	**Harvest** Bonita Springs, FL Provides health-care mgmt. svcs.	1,881	2,100	106	E	F	30	13	1968
136.	**Pacific Biotech** San Diego, CA Mfrs. medical diagnostic testing materials	1,858	4,346	222	B	F	89	8	1982
137.	**Omnicomp Graphics** Houston, TX Mfrs. computer graphics hardware	1,847	7,475	384	C	F	48	14	1982
138.	**Landmark Systems** Vienna, VA Mfrs. systs. software	1,823	20,206	1,051	A	A	161	11	1983
139.	**Mid-Atlantic Medical Svcs.** (90) East Rutherford, NJ Rents specialty medical equipment	1,822	5,479	285	D	A	52	23	1976
140.	**New Methods Research** Syracuse, NY Provides computer software	1,811	2,026	106	B	D	34	1	1983
141.	**Kalamazoo Banner Works** Kalamazoo, MI Mfrs. banners & stationery products	1,808	2,099	110	D	F	28	4	1983
142.	**Advanced Entry Systems** Dallas, TX Sells & installs security systs.	1,808	3,777	198	D	F	30	4	1984
143.	**Modular Instruments** Malvern, PA Mfrs. medical & research equipment	1,805	1,981	104	C	F	15	1	1984
144.	**Cowan** Joliet, IL Distr. beauty salon products	1,786	3,395	180	D	F	22	4	1983
145.	**Franciosi, Richartz, Weiman & Fliss** (396) Parsippany, NJ Provides advertising & PR svcs.	1,785	9,800	520	A	C	12	5	1980
146.	**Automotive Caliper Exchange** Long Beach, CA Remfrs. brake calipers & front-end systs.	1,768	7,172	384	C	D	111	16	1984
147.	**Buccino & Associates** Chicago, IL Provides crisis mgmt. consulting svcs.	1,764	5,724	307	A	A	40	1	1981
148.	**Microcomputer Power** Houston, TX Resells computer hardware & software	1,764	31,513	1,691	B	B	73	17	1982
149.	**BSE Management** Arcadia, CA Provides environmental engineering svcs.	1,730	6,898	377	C	A	102	5	1982
150.	**Financial Supermarkets** (211) Poughkeepsie, NY Provides financial svcs.	1,721	3,843	211	A	C	18	12	1978
151.	**Archery Center International** (307) Monroe, MI Mfrs. & distr. archery equipment	1,714	2,721	150	D	E	25	2	1984
152.	**Generic Business Solutions** Wilmington, DE Provides turnkey computer solutions	1,696	3,897	217	D	A	45	3	1984
153.	**Tarason Labels** Conover, NC Mfrs. printed labels & tags	1,691	2,525	141	C	A	18	3	1983
154.	**Clesen Business Centers** (238) Exton, PA Sells computers	1,688	26,106	1,460	C	E	50	4	1981
155.	**Government Technology Services** (5) Chantilly, VA Integrates & resells computer products	1,678	175,918	9,892	F	D	450	11	1983
156.	**Martin-Logan** Lawrence, KS Mfrs. & mkts. electrostatic loudspeaker products	1,666	2,172	123	A	F	25	3	1983
157.	**Resource Conservation Services** Yarmouth, ME Provides recycling & mgmt. svcs.	1,665	4,449	252	C	C	50	2	1983
158.	**Power Resources Operating** Canton, OH Operates gas & oil drilling, well operations	1,665	8,350	473	E	C	12	8	1981
159.	**MetroCareers** Houston, TX Provides contract staffing & placement svcs.	1,661	5,106	290	D	D	9	2	1984
160.	**Quad Systems** (19) Horsham, PA Mfrs. products for automated electronics industry	1,659	12,280	698	F	F	100	42	1981
161.	**Maryland Health & Fitness** Millersville, MD Operates Physicians Weight Loss Center franchise	1,655	1,790	102	B	D	18	3	1984
162.	**Aromatique** (39) Heber Springs, AR Mfrs. decorative room fragrances	1,647	9,837	563	A	A	131	86	1983
163.	**Steadi-Systems** (162) Los Angeles, CA Distr. & sells motion picture supplies	1,637	4,342	250	C	C	13	1	1983
164.	**Cadmus Group** Waltham, MA Provides economic, policy, & planning svcs.	1,617	2,009	117	D	F	30	2	1983
165.	**RESOLUTE Building** Chapel Hill, NC Provides general contracting svcs.	1,592	7,595	449	D	D	45	3	1984

166.	**Mid Atlantic Storage Systems** Washington C.H., OH Provides specialty construction svcs.	1,586%	$4,975	$295	C	D	23	3	1984
167.	**Wahoo! Boats Unlimited** Ashland, VA Mfrs. & distr. fiberglass boats	1,572	5,318	318	A	F	55	15	1984
168.	**Bohdan Associates** Gaithersburg, MD Sells hardware, software, & peripherals	1,571	48,458	2,900	D	D	102	6	1984
169.	**Geoscience Consultants** (67) Albuquerque, NM Provides hazardous-waste mgmt. svcs.	1,567	5,351	321	D	A	65	5	1983
170.	**Communications International** (29) Norcross, GA Provides communications systs. integration	1,560	14,941	900	D	D	275	50	1980
171.	**Bulk International** Troy, MI Retails candy, nuts, & gifts	1,557	4,390	265	F	F	36	5	1983
172.	**Southwest Royalties** (358) Midland, TX Provides oil & gas exploration svcs.	1,541	3,808	232	A	F	28	3	1983
173.	**Wellex** (144) Fremont, CA Mfrs. & sells electronic components	1,535	10,887	666	D	F	236	55	1983
174.	**D.D.F. Transportation** (134) Tonawanda, NY Provides trucking transportation svcs.	1,524	6,579	405	D	E	67	6	1981
175.	**Meridian Travel** Brooklyn Hts., OH Provides travel mgmt. svcs.	1,516	10,100	625	D	F	35	3	1984
176.	**Calter Bay International** New York, NY Mfrs. apparel	1,500	13,937	871	C	F	25	5	1983
177.	**Routing Technology Software** Vienna, VA Mfrs. video routing software	1,490	2,321	146	D	F	26	5	1983
178.	**Eaglebrook Plastics** Chicago, IL Recycles plastics	1,489	6,199	390	C	E	50	8	1983
179.	**Paris Gourmet** Houston, TX Imports & distr. gourmet food	1,489	1,891	119	D	D	16	3	1983
180.	**Real World Systems** (102) Glen Mills, PA Integrates commercial computer systs.	1,471	3,518	224	D	D	14	3	1983
181.	**Barakat, Howard & Chamberlin** Oakland, CA Provides economic & mgmt. consulting svcs.	1,463	3,469	222	B	B	90	3	1982
182.	**Microsolutions** (85) Dallas, TX Sells PCs, software, & accessories	1,462	15,165	971	E	D	48	8	1982
183.	**Gateway Design Automation** Lowell, MA Supplies CAE software tools	1,462	6,106	391	A	A	75	4	1983
184.	**Russell Personnel Services** San Francisco, CA Provides permanent- & temporary-help svcs.	1,458	3,474	223	D	B	1,174	22	1983
185.	**Seatec** Warrior, AL Provides engineering & technical contract svcs.	1,450	8,569	553	D	D	10	3	1977
186.	**RMI Resource Management** (46) Media, PA Provides specialty contract svcs.	1,439	5,510	358	F	D	40	17	1979
187.	**Wellness & Lifestyle** Dallas, TX Operates weight-loss clinics	1,432	2,558	167	B	A	57	7	1983
188.	**Rizzo Associates** Natick, MA Provides engineering & environmental svcs.	1,429	4,160	272	D	C	80	7	1983
189.	**Florida Fulfillment** Miami, FL Provides distr., warehousing, & direct-mail svcs.	1,429	3,745	245	C	C	105	10	1982
190.	**National Data Products** Largo, FL Distr. computers, equipment, & supplies	1,428	7,504	491	D	C	45	15	1982
191.	**Shawmut Design & Construction** (219) Boston, MA Provides general contracting svcs.	1,412	19,278	1,275	D	E	120	20	1982
192.	**Allied Computer Group** Milwaukee, WI Sells, svcs., & supports computer systs.	1,405	7,839	521	C	E	34	8	1983
193.	**Interay International X-Ray Tube** N. Charlestown, SC Mfrs. & svcs. X-ray tubes	1,402	3,604	240	D	D	7	4	1982
194.	**Leros Point to Point** Thornwood, NY Provides corporate transportation svcs.	1,386	2,155	145	B	D	48	8	1984
195.	**Nationwide Vending Services** Upland, CA	1,383	6,718	453	E	F	40	5	1983
196.	**Donaldson & Co.** Atlanta, GA Operates institutional stockbroker firm	1,370	2,513	171	B	C	4	2	1984
197.	**Recktron** Rochester, MI Assembles & tests audio signal equipment	1,368	2,261	154	D	D	27	1	1982
198.	**Roadshow Services** San Francisco, CA Provides trucks & drivers for performers	1,365	2,754	188	D	D	55	16	1982
199.	**w/e** Bedford, MA Builds & operates resource-recovery facilities	1,363	13,136	898	D	F	170	7	1981
200.	**SIR Group** (263) Dallas, TX Provides insurance sales & svcs.	1,355	12,338	648	C	D	45	8	1983


JOHN HARDING

#184

Carol Russell
Russell Personnel Services Inc.

Provides full-time and temporary personnel

GROWING UP

Mother TV makeup artist
Father Stage manager with the Minsky Brothers burlesque show
Hometown Manhattan
Education High school. "I never finished Hunter College."
Jobs Worked way up through temporary-services industry, starting as file clerk

GETTING HERE

"I became a junior partner at an employment firm—you have all the work and none of the say. I just decided the time had come to push off on my own."

MY COMPANY, MY SELF

Inspiration Reading everything—from biographies to religion
Family in Business None
What's Changed "I do miss just being able to look up and tell everybody something. There's a camaraderie you miss. Also the uncertainty, which may be why we push ourselves to grow."
Lose Sleep Over Wanting to grow faster
Workweek 40 to 45 hours
Last Vacation Four days in Palm Desert, Calif. "By the fourth day I was going crazy. I couldn't stand not working."
Use a PC? No. "I'm a PC illiterate."
What's Next New offices, maybe franchising

FOOTNOTE

"I'm an extremely ambitious human being, and the more successful I become, the more ambitious I become. My anxiety is, can I get far enough fast enough? I don't want to sound grandiose, but it's kind of like being a success junkie."

JOHN HARDING

Richard H. Novak
N. H. S. Inc.

Manufacturer and distributor of skateboards and related products

GROWING UP

Mother Beautician, store clerk
Father Maintenance engineer, construction
Hometown Capitola, Calif.
Education One year junior college
Jobs Fisherman, garbageman, sailor, surfboard maker

GETTING HERE

"My partner, a friend, and I made the first precision bearing wheel and jumped into a 1950 Chevy and drove around the country selling it, and within a year or so we had a fistful of money. We only did it so we could surf most of the time."

MY COMPANY, MY SELF

Inspiration "My parents, a friend I sailed with for a year and a half, an older Chinese man."
Family in Business Nephew in production
What's Changed "I hate responsibility, but I have a ton of it. I don't enjoy expensive cars or houses or any of that stuff. But I like the game of business, I think it's fun."
Lose Sleep Over Dealing with employees' problems
Workweek 45 hours
Last Vacation "I've been all over the world a few times, surfing. Now, I'd rather stay here."
Use a PC? No
What's Next Maybe license off parts of business

FOOTNOTE

"When I was 18 I saw all these people retiring at 55 and their bodies were destroyed and they didn't have any money; I didn't have any money either, but my body worked, so I figured if I retired now, and went to work later, it would probably balance itself out."

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
201.	**Peter Norton Computing** (136) Santa Monica, CA Mfrs. PC utilities software	1,343%	$15,198	$1,053	B	A	59	4	1982
202.	**Progressive Ribbon** Middletown, OH Mfrs. computer printer ribbons	1,340	7,200	500	D	D	96	15	1984
203.	**Transamerica Energy Associates** (50) Atlanta, GA Provides technical engineering svcs.	1,338	11,617	808	D	D	237	15	1982
204.	**Central Coast Analytical Svcs.** San Luis Obispo, CA Provides analytical environmental lab testing	1,336	2,427	169	D	C	55	4	1984
205.	**Custom Living Homes & Comm.** (143) Chester, NJ Builds new houses	1,332	106,586	7,444	D	C	150	10	1973
206.	**Kidwell Construction** Kingdom City, MO Provides general contracting svcs.	1,332	6,628	463	A	A	35	10	1983
207.	**Falcon Microsystems** Landover, MD Distr. & integrates software systs.	1,328	39,869	2,791	E	E	150	13	1983
208.	**Software 2000** (189) Hyannis, MA Develops & distr. business application software	1,328	9,681	678	B	C	94	8	1981
209.	**Corporate Resource Associates** Redwood City, CA Designs & develops training systs.	1,321	1,677	118	D	C	23	3	1984
210.	**Action Systems Technologies** (103) Indianapolis, IN Provides engineering & technical svcs.	1,306	7,032	500	F	A	190	3	1980
211.	**Computer People Unlimited** Milwaukee, WI Provides data-processing & software eng. svcs.	1,299	11,182	799	D	C	182	38	1984
212.	**Scentique** Concord, CA Mfrs. sachets, potpourri, & intimate apparel	1,289	2,820	203	C	D	51	3	1983
213.	**IMRS** (244) Stamford, CT Provides software solutions	1,281	8,161	591	D	F	65	14	1981
214.	**N.H.S.** Soquel, CA Mfrs. & distr. skateboards	1,271	20,461	1,492	A	D	125	10	1972
215.	**Pentz Design Pattern & Foundry** Duvall, WA Operates precision sand-cast aluminum foundry	1,266	1,421	104	D	A	33	3	1980
216.	**Jandel Scientific** Corte Madera, CA Mfrs. microcomputer software tools	1,266	3,101	227	C	F	29	9	1982
217.	**David Alon Enterprises** Vernon, CA Mfrs. women's & children's clothing	1,264	24,913	1,827	D	D	145	48	1984
218.	**Cable Photo Systems** Bloomington, MN Provides photography & photo lab svcs.	1,258	2,649	195	C	F	20	4	1984
219.	**Advent Software** San Francisco, CA Develops portfolio mgmt. software & svcs.	1,257	2,267	167	C	A	35	2	1983
220.	**Pearl's Kitchen** Detroit, MI Provides food-distr. svcs.	1,249	4,277	317	D	F	9	3	1979
221.	**SBT** Sausalito, CA Mfrs. accounting & MIS computer software	1,249	8,349	619	C	D	85	10	1981
222.	**Exsel** Rochester, NY Remkts. computer equipment	1,241	5,379	401	D	F	18	6	1983
223.	**Clinical Medical Equipment** Roswell, GA Provides independent medical svcs.	1,239	6,946	519	F	F	84	24	1980
224.	**Elkins Constructors** Jacksonville, FL Provides general & mechanical contracting svcs.	1,228	17,440	1,313	D	F	45	15	1952
225.	**Charing Co.** Madison, WI Provides retirement plan svcs.	1,228	1,328	100	E	E	20	9	1983
226.	**Certified Engineering & Testing** Braintree, MA Provides environmental testing & consulting svcs.	1,222	8,340	631	D	D	165	16	1983
227.	**Mortara Instrument** Milwaukee, WI Mfrs. electrocardiography instruments	1,208	8,685	654	A	A	30	9	1982
228.	**Paul Sebastian** (133) Ocean, NJ Mfrs. fragrances	1,205	26,682	2,044	D	D	94	20	1979
229.	**Park Cardiographics** Taunton, MA Provides diagnostic medical svcs.	1,202	20,875	1,603	A	A	175	30	1981
230.	**Walker Richer & Quinn** (166) Seattle, WA Mfrs. communications software	1,184	12,324	960	C	D	80	55	1980
231.	**Weathashade** (408) Apopka, FL Mfrs. plastic lawn & garden products	1,170	16,759	1,320	F	F	112	15	1981
232.	**Eastern Marine Construction** (55) Nashua, NH Provides construction svcs.	1,169	5,547	437	C	B	110	28	1981
233.	**H&M Food Systems** (12) North Richland Hills, TX Mfrs. meat-based food products	1,161	40,258	3,192	D	D	166	23	1983
234.	**Electrotek Concepts** Mountain View, CA Provides computers for electric utility industry	1,155	1,996	159	D	F	22	5	1984
235.	**Inter-ad** Rochester, NY Mfrs. public access computer information systs.	1,153	1,887	133	C	A	18	2	1982

K.D. LAWSON/BLACK STAR

Jerry Meador
Home Grown Woods Inc.

Manufacturer of wooden gift items

GROWING UP

Mother Homemaker
Father Safety engineer
Hometown Nashville
Education College night school after Vietnam
Jobs Musician; public works official

GETTING HERE

"My wife and I were both job burnouts—she was a guidance counselor and I was in government in this small town near Nashville—so with enough savings to get us by we decided we would just quit and go to Pigeon Forge, Tenn., to open our business."

MY COMPANY, MY SELF

Inspiration "The money. And having created the business ourselves."
Family in Business Wife, cofounder and VP of finance
What's Changed "It certainly was scary to get started up. Of course, we never considered failure as an option. It just took a lot of nerve to leave two secure jobs. It's still scary—but today we don't have as much time to worry about it."
Lose Sleep Over Cash flow
Workweek 70 hours
Last vacation Florida beach with family in September
Use a PC Yes, a little
What's Next Starting another company—"I'd rather not say what kind right now." Plan to keep Home Grown Woods for a while.

FOOTNOTE

"I guess you'd call me a redneck. Music is my first love—I played a lot around Nashville many years ago, and it gets in your blood and won't leave you. And my roots are in the country. I like trucks and fishing and my dogs and my kids."

	Company (1988 rank) Product description	1984–88 Percent increase	'88 sales ($000)	'84 sales ($000)	Profit range*		No. of employees		Date founded
					'88	'84	'88	'84	
236.	**Enreco** (22) Amarillo, TX Provides environmental cleanup svcs.	1,153%	$12,817	$1,023	D	D	52	5	1982
237.	**American Rug Craftsmen** Sugar Valley, GA Mfrs. & mkts. woven & tufted rugs	1,149	15,478	1,239	C	C	292	4	1984
238.	**Devtron, Russell** Gladwin, MI Integrates CAD/CAM systs.	1,149	2,210	177	D	D	15	4	1969
239.	**J.B. Coxwell Contracting** Jacksonville, FL Provides road & underground utility constr. svcs.	1,137	15,326	1,239	C	A	150	30	1983
240.	**Pretty Punch Shoppettes** (314) Sanford, FL Mfrs. embroidery craft kits	1,119	4,634	380	C	D	67	8	1981
241.	**Compuclassics** Canoga Park, CA Sells computer software through mail order	1,119	11,800	968	D	D	40	2	1984
242.	**Olympic Temporary Services** Covina, CA Provides permanent- & temporary-help svcs.	1,116	5,166	425	D	F	14	4	1983
243.	**Active Parenting** Marietta, GA Develops parent education videos	1,115	1,300	107	A	F	13	2	1983
244.	**Integrated Systems Control** Virginia Beach, VA Provides technical & engineering svcs.	1,114	3,278	270	C	F	68	14	1983
245.	**NCO Financial Systems** (389) Blue Bell, PA Provides financial svcs.	1,105	1,554	129	C	D	31	3	1926
246.	**Landscapes Unlimited** Lincoln, NB Constructs golf courses	1,098	13,806	1,152	B	F	75	10	1976
247.	**Factor, Fox & Associates** (201) Los Angeles, CA Provides telemkt. & direct-mail svcs.	1,095	6,631	555	F	E	155	10	1983
248.	**Alpha Computers** (94) Lake Oswego, OR Sells & svcs. microcomputers	1,094	9,000	754	D	D	57	11	1982
249.	**Kaminari** (323) Brea, CA Mfrs. aerodynamics components for automobiles	1,093	2,982	250	C	C	75	12	1982
250.	**Rippey** Santa Clara, CA Mfrs. cleaning products & clean-room supplies	1,091	2,393	201	D	F	19	7	1983
251.	**Minker Construction** Hockessin, DE Provides general contracting svcs.	1,084	7,813	660	C	C	25	2	1983
252.	**DMC Construction** Fresno, CA Provides general contracting svcs.	1,080	13,978	1,185	D	D	53	8	1976
253.	**Home Grown Woods** Sevierville, TN Mfrs. wooden gifts & decorative accessories	1,077	1,495	127	B	A	48	27	1982
254.	**Arrowhead Landscaping & Maint.** (99) Phoenix, AZ Provides landscape contracting svcs.	1,070	3,953	338	F	C	165	9	1983
255.	**Network Controls International** (161) Charlotte, NC Provides hardware & software svcs.	1,065	9,993	858	D	C	40	18	1983
256.	**Dore & Associates Contracting** Bay City, MI Provides asbestos-abatement & demolition svcs.	1,064	11,613	998	C	D	75	20	1978
257.	**Circle K RV's** Lapeer, MI Sells & svcs. RVs & trailers	1,058	2,046	177	D	D	6	3	1984
258.	**Greater Alarm** (181) Huntington Beach, CA Provides electronic security svcs.	1,056	2,612	226	D	B	60	16	1981
259.	**Syracuse Newtimes Newspaper** Syracuse, NY Publishes newspaper; provides graphic arts svcs.	1,054	1,223	106	C	F	28	9	1984
260.	**Hansen** Des Moines, IA Provides general contracting svcs.	1,053	16,017	1,389	D	D	80	10	1979
261.	**Wang Associates Public Relations** New York, NY Provides public relations svcs.	1,049	1,436	125	B	E	18	2	1983
262.	**Salem Screen Printers** Salem, NH Mfrs. & distr. T-shirts & active wear	1,035	16,191	1,426	C	C	126	20	1981
263.	**Princeton Review** (106) New York, NY Offers preparation for college admissions tests	1,035	5,548	489	C	C	35	14	1983
264.	**Lester Telemarketing** Branford, CT Provides telemkt. & mkt. research svcs.	1,031	3,202	283	D	F	75	5	1981
265.	**S. Cohen & Associates** McLean, VA Provides environmental consulting svcs.	1,031	2,647	234	D	C	20	3	1981
266.	**Beckett** Lionville, PA Mfrs. self-adhesive labels	1,028	8,744	775	D	D	58	4	1982
267.	**Electronic Liquid Fillers** (194) LaPorte, IN Mfrs. packing equipment	1,028	9,573	849	A	A	90	6	1981
268.	**Henley International** (403) Sugar Land, TX Mfrs. medical equipment	1,024	10,172	905	D	F	110	12	1976
269.	**CText** Ann Arbor, MI Mfrs. newspaper publishing systs.	1,022	7,318	652	C	F	89	12	1983
270.	**City Sports** Boston, MA Sells sporting goods	1,021	3,923	350	D	F	24	4	1983

JAY BROUSSEAU

C. Ron Martell
Microdynamics Inc.

Provides CAD/CAM systems for apparel and shoe companies

GROWING UP

Mother Worked at family business
Father Owned auto repair shop
Hometown Orange, Tex.
Education M.S. engineering
Jobs Designed weapons systems at Sandia Laboratories

GETTING HERE

"I had a personal goal to start a business by the time I was 30; I missed the target by a year. I grew my first company to $25 million, sold my interest, and started Microdynamics the next year."

MY COMPANY, MY SELF

Inspiration Father, who ran his shop with a 10th-grade education
Family in Business None
What's Changed "I used to work on the weekends on technical problems, and I've tried to disassociate myself from those. I worry about the bigger business issues now."
Lose Sleep Over Cash flow and profitability. "Since we're VC-backed, there's constant pressure to maximize profits."
Workweek 60 hours
Last vacation January, to Colorado for a week of skiing
Use a PC No
What's Next Grow to $100 million, then start new company

FOOTNOTE

"We're shipping a lot to Russia, and since the key to Gorbachev's remaining in power is his being able to build up consumer goods, hopefully our equipment will help do that. Because he's been the best thing for peace. I've come full circle—and I feel a lot better giving the Russians shoe factories and apparel equipment than worrying about nuclear weapons."

	Company (1988 rank) Business description	Percent	'88 sales	'84 sales	Profit range*		employees		Date
271.	**Hydro Services** Long Beach, CA Provides industrial maintenance svcs.	1,015%	$7,206	$646	C	D	120	15	1982
272.	**Prestige Leather Creations** Vernon, CA Mfrs. belts	1,014	10,147	911	C	D	300	30	1974
273.	**IG Systems** Los Angeles, CA Provides data-processing svcs.	1,013	5,499	494	C	E	70	10	1984
274.	**Advanced Sciences** (370) Albuquerque, NM Provides technical & consulting svcs.	1,009	18,353	1,655	D	E	221	34	1977
275.	**Corporate Book Resources** Rutherford, NJ Provides business-oriented book ordering svcs.	1,007	1,527	138	D	F	1	1	1982
276.	**Vanguard Research** Fairfax, VA Provides design, engineering, & systs. analysis svcs.	1,004	6,524	591	D	F	85	14	1984
277.	**T.G. Bauer Associates** Falls Church, VA Provides technical consulting svcs.	1,000	5,348	486	D	E	83	14	1981
278.	**EVI** Columbia, MD Mfrs. radio communications equipment	1,000	1,386	126	D	E	15	3	1983
279.	**John Paul Mitchell Systems** Saugus, CA Mfrs. salon hair-care products	996	62,500	5,700	A	A	37	20	1980
280.	**Super Wash** (397) Morrison, IL Builds & runs coin-operated car wash facilities	996	16,696	1,524	B	C	54	3	1981
281.	**Staff Control** Cerritos, CA Provides temporary-help svcs.	994	11,971	1,094	D	D	46	4	1983
282.	**Microdynamics** (260) Dallas, TX Provides CAD/CAM systs.	994	27,298	2,496	D	F	204	48	1979
283.	**American Fabricating** Boonville, IN Mfrs. & distr. auto racing parts	991	4,922	451	B	A	33	7	1983
284.	**Larsen Engineers** Milwaukee, WI Provides engineering consulting svcs.	986	1,184	109	D	F	22	4	1983
285.	**Wilson Sculley Associates** St. Louis, MO Operates advertising agency	973	7,628	711	C	D	24	4	1983
286.	**Quicksilver Express Courier** (177) Minneapolis, MN Provides courier svcs.	973	5,964	556	C	D	300	100	1982
287.	**Addtemps/J.M. Peters** Cincinnati, OH Provides temporary-help svcs.	970	1,659	155	D	F	10	2	1984
288.	**Venture Graphics** Waukesha, WI Provides lithographic color-seperation svcs.	969	2,106	197	A	B	33	7	1984
289.	**Greenleaf Health Systems** (35) Chattanooga, TN Operates private psychiatric hospitals	963	28,698	2,700	D	F	420	160	1981
290.	**Leather Center** (141) Carrollton, TX Mfrs. & sells leather furniture	961	46,655	4,399	D	F	447	41	1982
291.	**Orchard Computer** Plymouth, MA Sells computer hardware & software	960	4,080	385	E	D	30	7	1984
292.	**DiGesare Mechanical** Schenectady, NY Installs plumbing, heating, & AC systs.	960	10,363	978	D	D	95	10	1982
293.	**Mini Technology** Springfield, IL Mfrs. electronic instrumentation	956	2,546	241	D	D	39	7	1982
294.	**Core International** (285) Boca Raton, FL Mfrs. storage subsysts. for microcomputers	948	22,131	2,111	D	C	126	22	1979
295.	**Acoustic Imaging Technologies** Tempe, AZ Mfrs. medical diagnostic ultrasound equipment	945	4,161	398	F	F	180	20	1983
296.	**Proteon** Westborough, MA Mfrs. systs.-level products for networking	944	40,618	3,892	D	F	260	72	1972
297.	**Lincoln Scenic Studios** New York, NY Provides background scenery for TV shows	943	10,519	1,009	C	F	50	17	1966
298.	**Reliable Mechanical** Louisville, KY Provides mechanical contracting svcs.	942	12,396	1,190	D	B	125	12	1982
299.	**Distrib. Analysis Research & Tech.** Bala Cynwyd, PA Develops vehicle routing & scheduling software	940	3,192	307	D	C	32	7	1981
300.	**Techmatics** (216) Arlington, VA Provides engineering, computer, & professional svcs.	938	9,776	942	C	C	125	15	1982
301.	**Advanced Computer Concepts** Arlington, VA Mfrs. & mkts. computer hardware & software	935	20,219	1,954	C	E	40	5	1982
302.	**Group Benefit Services** Lutherville, MD Administers employee benefits programs	933	24,131	2,336	D	D	39	5	1980
303.	**STAT Medical Services** Hollywood, CA Provides temporary-nursing svcs.	933	14,735	1,427	C	A	1,000	100	1982
304.	**Oscar Medical** (79) Palm Harbor, FL Mfrs. products for microsurgery	932	4,191	406	C	F	45	6	1982
305.	**RHS Fertilizing/Spraying Systems** Hiawatha, KS Mfrs., distr., & sells sprayer & fertilizer equipment	927	1,623	158	D	F	18	3	1980

306.	**Stockpot Soups** Redmond, WA Mfrs. fresh soup concentrates	926%	$3,395	$331	D	E	85	10	1982
307.	**Management Research Group** Portland, ME Provides mgmt., leadership, & sales consulting svcs.	917	1,230	121	A	A	7	3	1983
308.	**Allservice Foods** Addison, IL Mfrs. & packages snack foods	915	1,980	195	C	D	17	3	1984
309.	**Venture Communications Int'l** (44) New York, NY Provides direct-mail advertising svcs.	915	5,948	586	B	A	34	6	1983
310.	**Gardener's Supply** Burlington, VT Sells garden supplies through mail order & retail	914	10,545	1,040	D	F	60	10	1983
311.	**Public Interest Affiliates** (135) Chicago, IL Syndicates radio & TV programming	913	4,135	408	D	B	35	10	1980
312.	**Encore Marketing International** (360) Lanham, MD Provides travel arrangement svcs.	910	69,914	6,922	C	D	900	59	1978
313.	**Data Source Media** (185) Lincoln, NB Distr. computer supplies	905	2,926	291	D	D	13	3	1973
314.	**Mrs. Hall's Cookies** San Pedro, CA Distr. bakery products	903	1,554	155	D	C	60	10	1982
315.	**Coddbarrett Associates** (154) Providence, RI Provides computer graphics svcs.	901	2,493	249	F	C	25	15	1982
316.	**Green Thumb Enterprises** Sterling, VA Provides commercial landscape contracting svcs.	900	6,601	660	C	B	200	20	1982
317.	**Capricorn Systems International** San Jose, CA Provides computer consulting svcs.	900	3,630	363	C	D	5	2	1978
318.	**C-Cubed** (214) Alexandria, VA Provides engineering & technical support svcs.	900	10,637	1,064	D	D	150	24	1974
319.	**Syscomm International** (83) Hauppauge, NY Sells computer hardware & software	900	28,292	2,830	D	D	60	13	1980
320.	**Dialogic Communications** Franklin, TN Mfrs. interactive voice-response systs.	894	2,017	203	D	F	17	8	1982
321.	**Little & Co.** (339) Salt Lake City, UT Provides mortgage field svcs.	887	6,228	631	C	D	83	8	1979
322.	**Burdco Environmental** (306) Traverse City, MI Provides asbestos-abatement svcs.	887	11,385	1,154	D	D	130	25	1982
323.	**Packaging Resources** Lake Forest, IL Mfrs. plastic food packaging	885	97,058	9,853	D	F	945	250	1984
324.	**First Intercontinental** Irving, TX Imports & exports agricultural products	884	5,185	527	B	C	6	1	1981
325.	**Smart** Torrance, CA Provides medical record correspondence svcs.	874	19,574	2,009	B	B	650	465	1976
326.	**Health Care Associates** (233) Avon, CT Owns & operates nursing homes	871	53,750	5,536	D	D	2,000	300	1976
327.	**Perencorp** Brookline, MA Develops real estate	867	23,256	2,404	D	D	12	5	1978
328.	**Sunday River Skiway** (163) Bethel, ME Operates ski resort	866	23,627	2,445	A	A	150	35	1958
329.	**Prime Technology** (174) Grand Rapids, MI Distr. machine tools	864	3,500	363	F	D	21	6	1982
330.	**Landmark Hotel** (76) Topeka, KS Develops & operates hotels & restaurants	863	73,949	7,680	F	F	3,500	800	1962
331.	**Backroads Bicycle Touring** Berkeley, CA Provides van-supported bicycle tours	861	4,084	425	C	D	39	5	1979
332.	**Georgia Mountain Water** (320) Marietta, GA Bottles, distr., & sells spring water	859	1,794	187	C	D	30	6	1982
333.	**Creative BioMolecules** Hopkinton, MA Produces proteins for medical applications	858	4,281	447	F	F	61	36	1981
334.	**Best Mailing Lists** New York, NY Provides direct-mail & mkt. svcs.	853	1,029	108	B	F	8	1	1984
335.	**Software Alternatives** Maumee, OH Develops software; integrates hardware	849	13,591	1,432	C	D	230	35	1978
336.	**Rue de France** (257) Newport, RI Mfrs. & sells French lace curtains	849	2,610	275	D	D	35	5	1982
337.	**Unique Transportation Systems** Lewisville, TX Provides trucking svcs.	848	3,905	412	F	C	60	12	1983
338.	**Russell Construction** (48) Bettendorf, IA Provides general contracting svcs.	845	6,125	648	D	F	30	15	1983
339.	**HazMat Environmental Group** Buffalo, NY Provides hazardous-waste transport & consult. svcs.	845	6,244	661	C	F	80	10	1984
340.	**Bubbling Bath Spa & Tub Works** Rockville, MD Mfrs. & sells jetted bathtubs & spas	844	1,180	125	D	C	10	2	1979

ONNE VAN DER WAL

Pamela Kelley
Rue de France Inc.

Manufacturer of French lace curtains

GROWING UP

Mother Homemaker; took over business when husband died
Father Owned and managed funeral home
Hometown Washington, N.J.
Education B.A. math; J.D.
Jobs Attorney for Securities and Exchange Commission; cofounded law firm in 1983

GETTING HERE

"My husband and I lived in Paris for a few years, and I had French lace curtains on my window. I figured that if I thought they were an attractive alternative to Levelor blinds, maybe other people would, too. I also wanted a business excuse to go back to Paris."

MY COMPANY, MY SELF

Inspiration New-product development. "That enthuses me, gets the brain working."
Family in Business Husband consults on advertising
What's Changed "When I started I had no resources for locating raw materials or asking questions. A lot of what I was doing was in the dark. Now, the challenges come from managing people."
Lose Sleep Over Cash flow
Workweek More than 70 hours, between this and law firm
Last Vacation Competed in an international women's sailing championship last fall (crew placed 5th)
Use a PC Yes, a laptop
What's Next More of the same

FOOTNOTES

"When time pressures get overwhelming, my husband asks, 'Well, why do you have two jobs?' But I like my partners in the law firm, and I don't have too many people I can complain to in my own firm, since I'm the top."

LEIF SKOOGFORS/WOODFIN CAMP

Michael Feeney
Educational & Fun Ltd.

Retailer of educational toys and teaching aids

GROWING UP

Mother Nurse
Father Funeral director
Hometown Reading, Pa.
Education Left 11th grade to join Army; mortuary school
Jobs Vietnam 1966 to '68; funeral director; coroner; county commissioner

GETTING HERE

"My wife was a teacher, but the stores she went to for good materials were always out of stuff. It was frustrating. So we opened our own store, decided to give it a try."

MY COMPANY, MY SELF

Inspiration Former colleagues
Family in Business Wife, cofounder and main buyer
What's Changed "The attention. With one small store, nobody at the toy show wanted to talk to me. With three stores, they're inviting me to the back room for a soda. Now, with five, they're giving me a sandwich, too."
Lose Sleep Over Cash flow
Workweek 5 hours; full-time county commissioner
Last Vacation Camping at the Grand Canyon of Pennsylvania
Use a PC? Yes, at home and in both offices
What's Next Two more stores

FOOTNOTE

"Since Vietnam I haven't touched a gun. Even now, I can feel a tightness in my chest just talking about it. There's a place in a person's life to understand what a gun is and how it's used, but I don't think it should be for very young kids. So parents who want to isolate their children from that for a time know they can walk in our store and there's no evidence of violence."

341.	**Xyquad** (366) St. Louis, MO Provides computer consulting svcs.	842%	$7,222	$787	B	F	71	27	1979
342.	**RPR & Associates** (37) Columbia, SC Provides general contracting & mgmt. svcs.	837	74,849	7,984	D	D	695	128	1977
343.	**Educational & Fun** Reading, PA Sells educational supplies & toys	837	1,284	137	D	F	15	4	1983
344.	**U S Realty Associates** Alexandria, VA Provides govt. & military real-estate svcs.	837	1,012	108	D	D	13	3	1984
345.	**Forms Direct** Frederick, MD Provides direct-mail printing & mailing svcs.	836	4,923	526	F	C	95	6	1983
346.	**MicroProse Software** (72) Hunt Valley, MD Develops & publishes entertainment software	831	16,090	1,728	C	C	142	16	1982
347.	**Life Design Systems** (423) Carrollton, TX Mfrs. respiratory & anesthetic devices	829	11,388	1,226	A	D	300	70	1977
348.	**Cell-Con** Exton, PA Repackages batteries	829	2,275	245	E-	C	12	5	1981
349.	**Teledial America** Grand Rapids, MI Provides long-distance telephone svcs.	828	20,531	2,212	C	F	46	14	1983
350.	**Echo Data Services** Lionville, PA Protects, duplicates, & packages software	827	3,049	329	C	D	24	4	1983
351.	**Leopardo Construction** Glendale Heights, IL Provides contracting & construction svcs.	826	13,639	1,473	D	F	50	12	1979
352.	**Chemical Technologies** Jackson, MI Mfrs. machining & grinding coolants	822	3,834	416	D	C	13	4	1983
353.	**Australian Wines** Roswell, GA Imports, promotes, & distr. Australian wines	821	1,216	132	B	F	6	2	1981
354.	**Schubert Environmental Equip.** Glendale Heights, IL Mfrs. & sells air pollution-control equipment	821	1,013	110	A	C	10	1	1980
355.	**Anderson Soft-Teach** San Jose, CA Mkts. training videotapes	819	1,571	171	C	C	23	4	1983
356.	**Trailco Leasing** Greensboro, NC Rents & leases semitrailers	818	3,030	330	B	F	41	1	1983
357.	**Consolidated Planning** (208) Charlotte, NC Provides financial svcs.	814	5,969	653	D	F	145	45	1981
358.	**Skoda, Minotti, Reeves** (478) Mayfield Village, OH Provides full-service accounting svcs.	812	2,033	223	D	D	28	6	1980
359.	**National Nurses Service** Silver Spring, MD Provides temporary-nursing svcs.	808	5,423	597	D	F	31	6	1982
360.	**Phoenix Process Equipment** Louisville, KY Mfrs. waste sludge pressure filters	806	2,672	295	A	D	7	2	1984
361.	**Royal Cabinets** Ontario, CA Mfrs. & installs cabinets	804	6,298	697	D	A	125	29	1984
362.	**Semot** Huntington Beach, CA Mfrs. & installs storage tank linings	793	23,206	2,600	D	D	185	51	1978
363.	**Made in France** Los Angeles, CA Imports & distr. food products	791	2,050	230	D	A	15	2	1984
364.	**Louisiana Business College of Monroe** Monroe, LA Operates private vocational school	791	6,225	899	D	D	268	30	1976
365.	**Silton-Bookman Systems** Cupertino, CA Develops & mkts. software	789	1,280	144	C	D	14	3	1984
366.	**Cosmopolitan Travel** San Diego, CA Provides travel arrangement svcs.	788	1,048	118	A	F	3	2	1984
367.	**Construction Technology** West Palm Beach, FL Provides general contracting svcs.	785	2,700	305	C	F	40	6	1983
368.	**Moose's Welding & Construction** Lyman, WY Provides general oil-field construction svcs.	785	2,504	283	D	C	100	10	1984
369.	**Practice Management Systems** (158) Needham, MA Provides office automation svcs.	785	6,786	767	C	B	79	5	1983
370.	**Full Line Foods** Camden, NJ Distr. food	783	5,313	602	D	D	12	4	1980
371.	**U.S. Landscape** Sea Cliff, NY Provides landscape contracting svcs.	782	1,623	184	C	D	38	10	1984
372.	**Pepco Extruded Products** Fresno, CA Mfrs. water-conservation products	778	2,098	239	D	C	64	2	1983
373.	**White Pine** (386) Middleton, WI Sells clothing through mail order	773	10,221	1,171	B	D	25	5	1981
374.	**Belkin Components** (112) Gardena, CA Mfrs. computer interface hardware	773	5,026	576	C	D	38	8	1983
375.	**Continental Financial Resources** Woburn, MA Provides equipment leasing svcs.	772	3,777	433	D	E	20	3	1983

376.	**International Galleries** Lincoln, NB Provides direct-mail & mkt. svcs.	770%	$8,432	$969	D	F	86	10	1978
377.	**Logicraft** (232) Nashua, NH Mfrs. computer networking products	767	8,782	1,013	C	C	70	11	1975
378.	**Royal Plans** Greenville, NC Distr. fund-raising products to schools	761	1,119	130	C	F	9	2	1984
379.	**Caxec** McLean, VA Provides systs. engineering & custom software svcs.	757	7,527	878	D	C	75	18	1976
380.	**McClanahan & Co.** New York, NY Packages textbooks	755	9,187	1,074	A	A	20	3	1976
381.	**Comsys Technical Services** Rockville, MD Provides software programming & engineering svcs.	755	9,001	1,053	D	D	170	21	1979
382.	**U-Save Auto Rental of America** (169) Hanover, MD Franchises rental car outlets	754	10,141	1,187	D	C	15	6	1979
383.	**Accutest Laboratories** (409) Dayton, NJ Provides environmental & medical testing svcs.	754	5,208	610	B	B	75	25	1956
384.	**Gary A. Taylor Construction** (157) Jackson, TN Provides general contracting svcs.	753	7,006	821	D	D	56	4	1984
385.	**Comstock Creations** (200) Durango, CO Mfrs. giftware & jewelry	752	2,216	260	B	B	55	10	1982
386.	**Advanced Energy Industries** (499) Fort Collins, CO Mfrs. electronic power supply systs.	752	15,869	1,862	D	B	210	128	1980
387.	**Hudson Valley Tree** (58) Newburgh, NY Mfrs. artificial Christmas trees	752	20,094	2,359	C	C	900	200	1982
388.	**Draughon Training Institute** Shreveport, LA Operates private vocational school	751	5,772	678	D	D	300	30	1891
389.	**Ideal Computer Services** Livermore, CA Sells used computer products	750	1,896	222	D	F	18	3	1983
390.	**Custom Property Management** Lake Worth, FL Manages real estate	743	2,732	324	E	F	120	8	1982
391.	**Forecast Mortgage** Rancho Cucamonga, CA Develops real estate	742	70,659	8,388	D	C	148	12	1972
392.	**Dash, Straus & Goodhue** (206) Boxborough, MA Tests electronic & telecomm. equipment	742	4,917	584	C	A	47	9	1980
393.	**BTG** (188) Vienna, VA Develops software; integrates computer systs.	741	23,542	2,799	D	D	240	48	1982
394.	**Sunny Waterbeds & Accessories** (469) Orlando, FL Mfrs. waterbeds, furniture, & accessories	739	1,426	170	C	A	40	6	1983
395.	**Enterprise Builders** Avon, CT Provides general contracting svcs.	737	11,245	1,344	D	F	30	3	1984
396.	**McLennan & Thebault** Elk Grove Village, IL Provides design & construction svcs.	735	17,992	2,156	D	D	29	12	1912
397.	**G.O.D.** (61) Kearny, NJ Provides overnight freight svcs.	733	16,504	1,981	D	D	324	68	1982
398.	**CareerTrack** (284) Boulder, CO Provides professional dvlpmt. training svcs.	733	51,434	6,177	C	D	328	36	1982
399.	**SYME** (371) Chagrin Falls, OH Mfrs. containers for hazardous-waste disposal	729	9,940	1,199	D	D	100	2	1978
400.	**Badger Products** Waterloo, IL Designs & mkts. shoe accessories	727	2,389	289	C	B	3	2	1983
401.	**Original Copy Centers** (264) Cleveland, OH Owns & operates copy centers	725	4,910	595	D	A	106	12	1975
402.	**Team Food Management** (350) Michigan City, IN Operates Little Caesar's pizza franchise	725	14,900	1,806	D	C	166	28	1982
403.	**Simmons Communications** (321) Stamford, CT Operates cable-TV systs.	722	66,660	8,111	F	F	542	75	1982
404.	**Glenn M. Gelman & Associates** Irvine, CA Provides accounting, tax, & financial svcs.	721	1,306	159	B	A	25	5	1983
405.	**All Gulf Contractors** (221) Mobile, AL Provides asbestos-abatement svcs.	719	7,250	885	C	C	41	13	1980
406.	**Sarda** Novi, MI Provides concrete contracting svcs.	714	9,970	1,225	D	D	20	12	1957
407.	**MRPS** Toledo, OH Sells & svcs. office machines	711	3,649	450	C	F	34	5	1980
408.	**Mr. Trees** San Anselmo, CA Provides tree care & maintenance svcs.	710	1,004	124	F	A	18	3	1983
409.	**Persona** Watertown, SD Mfrs. signs & related products	709	14,951	1,847	C	C	354	40	1980
410.	**Mantex** Houston, TX Imports & distr. steel products	705	15,891	1,973	C	D	8	5	1982

#364 and #388

TOM STAFORD/GAMMA

Terry Shultz
Louisiana Business College of Monroe Draughon Training Inst.
Career schools

GROWING UP

Mother Homemaker
Father Bought and managed the two schools
Hometown Alexandria, La.
Education Some business school; general aviation training
Jobs Went directly into working at the schools

GETTING HERE

"My father died when he was 47. I was 21 and my mother and I wanted to keep the family business. So I moved up to Shreveport and started learning the ropes."

MY COMPANY, MY SELF

Inspiration Being around intelligent people, the doers
Family in Business Sister, in marketing department
What's Changed "Your identity changes many times over through rapid growth. Who you are as a manager, as a person, your role in the company."
Lose Sleep Over Bringing in new students
Workweek 50 to 60 hours
Last vacation Took their kids to Disney World last December
Use a PC? Sometimes
What's Next Recently started a software company

FOOTNOTE

"I think some of the self-discipline I learned from aviation has given me the strength to face the challenges in this business. It teaches you self-confidence. Initially one of my biggest challenges was my youth. People don't quite accept you when you're very young. I don't feel that too much anymore; a lot of it has to do with my self-confidence."

#432

KEN KAUFMAN/GAMMA

Ray Martin
Jemson Cabinetry Inc.
Distributor of kitchen and bath cabinets

GROWING UP

Mother Homemaker
Father Minister, farmer
Hometown Ephrata, Pa.
Education High school
Jobs Ran a chicken farming operation, construction company

GETTING HERE

"I was buying my kitchen cabinets from a local distributor, and I loved the products he was handling, but he ended up losing the line. The factory eventually offered me the distributorship."

MY COMPANY, MY SELF

Inspiration "I'm rather a religious person, and think there's a higher meaning in life than seeing how many dollars I can make."
Family In Business Father helped start the company
What's Changed "I've turned over the day-to-day responsibilities—in fact, just this week a CEO was named in the company. I don't enjoy management much, and it was time to leave the business to professional managers."
Lose Sleep Over Not much, now that others run the show
Workweek 20 hours in helping new CEO
Last Vacation Week in Vermont this summer with wife and kids
Use a PC Yes
What's Next Active investor in several small firms; public service

FOOTNOTE

"Up to half my time I'd like to contribute to nonbusiness groups; for instance, I'm on the board of a housing advocate for low- to middle-income families. And I'm in, I guess you could say, a venture capital position with some companies. That's where my interests lie now."

411.	**ERM Group** (353) Exton, PA Provides environmental engineering svcs.	704%	$117,206	$14,592	C	C	910	170	1977
412.	**Caber Systems** (81) Miami, FL Sells microcomputers & accessories	700	34,854	4,358	D	D	85	10	1982
413.	**Sunglass Distributors** (455) Richmond, VA Wholesales to grocery & convenience stores	699	1,319	165	E	C	12	3	1981
414.	**Sunsoft** Albuquerque, NM Mfrs. soft contact lenses	699	6,496	813	B	B	249	30	1982
415.	**Viking Engineering** (239) Tarpon Springs, FL Mfrs. pressure washers & lawn equipment	699	2,755	345	D	D	26	5	1981
416.	**AC3** Birmingham, AL Resells microcomputers & related equipment	698	64,141	8,035	D	D	122	24	1980
417.	**Lebrecht Stephenson & Hagen** Milwaukee, WI Provides advertising & PR svcs.	694	1,461	184	D	F	8	8	1982
418.	**Seed Research of Oregon** Corvallis, OR Distr. turf grass seed	693	6,231	786	D	D	20	1	1983
419.	**New Boston Associates** Boston, MA Provides permanent- & temporary-help svcs.	692	19,849	2,505	C	D	136	38	1978
420.	**1st American Rental Center** (66) Lithonia, GA Rents & sells home appliances & furnishings	691	7,114	899	F	B	150	27	1983
421.	**Interactive Learning Systems** Atlanta, GA Provides computerized vocational education svcs.	691	5,763	729	A	F	133	31	1982
422.	**East Coast Auto Rental** Neptune Beach, FL Provides auto rental, tour, & charter svcs.	690	1,051	133	D	D	25	3	1983
423.	**Renaissance Investment Mgmt.** Cincinnati, OH Provides investment mgmt. svcs.	686	10,025	1,276	A	A	36	9	1978
424.	**Molly Maid** (273) Ann Arbor, MI Franchises residential cleaning & maid svcs.	686	3,590	457	D	E	2,553	475	1979
425.	**Automation At Work** (125) San Jose, CA Develops & sells microcomputer software	684	6,524	832	F	E	60	12	1983
426.	**Pride Transport** Salt Lake City, UT Transports perishables & commodities	683	6,325	808	B	C	80	8	1979
427.	**B2A Consultants/Survsat** Belle Mead, NJ Surveys land with satellite applications	681	1,803	231	A	A	19	11	1982
428.	**Windline Amanet** (489) Los Angeles, CA Mfrs. marine, industrial, & aerospace products	678	3,096	398	C	D	33	12	1980
429.	**MD&A Group** Kingston, NY Provides mkt., advertising, & design svcs.	677	6,055	779	D	D	35	8	1979
430.	**Micrografx** (265) Richardson, TX Develops & mkts. graphics software	677	11,581	1,491	B	D	150	20	1982
431.	**Carts of Colorado** Commerce City, CO Mfrs. mobile food svc. equipment	675	6,831	881	F	D	80	4	1984
432.	**Jemson Cabinetry** Ephrata, PA Distr. kitchen & bath cabinetry	675	6,955	897	D	D	57	7	1964
433.	**Advanced Network Design** La Mirada, CA Provides communication cost mgmt. svcs.	675	1,287	166	C	F	28	2	1978
434.	**Villa Enterprises** (457) Florham Park, NJ Operates Italian fast-food restaurant chain	675	23,079	2,979	A	A	120	22	1969
435.	**Computer Managers** New York, NY Provides data-processing svcs.	674	1,083	140	D	E	8	2	1983
436.	**Research Analysis & Maintenance** (86) El Paso, TX Provides defense contracting svcs.	672	6,122	793	D	A	170	13	1978
437.	**Datasec** (150) Wilton, NH Mfrs. computer products for government	672	8,466	1,097	F	D	72	16	1979
438.	**Midwest Publishing** Southfield, MI Provides telemkt. svcs.	671	8,630	1,119	C	C	100	19	1978
439.	**Arizona Freight Systems** Phoenix, AZ Provides common- and contract-carrier svcs.	671	1,696	220	D	F	40	8	1984
440.	**Currier Construction** (390) Auburn, NY Provides contracting & construction svcs.	670	4,646	603	F	E	16	11	1976
441.	**Advanced Systems Concepts** (347) Schaumburg, IL Mfrs. & sells computer software	670	2,548	331	E	E	9	4	1982
442.	**VHP** Sharon, PA Mfrs. exercise equipment	666	1,142	149	D	E	22	5	1984
443.	**Landair Transport** (399) Greeneville, TN Provides truckload carrier svcs.	660	30,324	3,992	E	D	524	145	1981
444.	**Comark** Glendale Heights, IL Distr. computers & accessories	659	52,526	6,916	D	D	96	44	1977
445.	**Lee Agency** Fairfax, VA Provides manufacturer's representative svcs.	657	2,339	309	D	D	15	1	1983

FRANCO SALMOIRAGHI

James Delano
Lion Coffee

Coffee roaster and distributor

GROWING UP

Mother Teacher and worked in family business
Father Runs wholesale distribution company
Hometown St. James, Mo.
Education B.A. art history
Jobs Worked for father, renovated historic building

GETTING HERE

"I studied design and had seen the original Lion Coffee trading cards from the 1880s and 1890s. The company had an illustrious career in Toledo but had ceased manufacturing; I thought having an historical brand of coffee at the coffeehouse I was building in Honolulu would make a nice tie-in."

MY COMPANY, MY SELF

Inspiration "I couldn't work for a stodgily managed company, and I really enjoy providing a good place for people to work."
Family in Business Father on board of directors
What's Changed "If there are things I miss, I start doing them again. I enjoy running the espresso machine at the caféat our roasting plant and unloading the coffee bags—I like the physical labor."
Lose Sleep Over Keeping shelf space in stores
Workweek 50 hours
Last vacation New York City, Vancouver
Use a PC? Yes
What's Next Reopen the original downtown coffeehouse

FOOTNOTE

"All the outside interests that people bring to the company are important. I want people to live and breathe Lion Coffee part of the time, but I want them to have other interests that move their souls a little bit."

	Company (1988 rank) [illegible]	1984–88 Percent [illegible]	'88 sales [illegible]	'84 sales [illegible]	Profit range [illegible]		[illegible] employees		[illegible]
446.	**Ovation Marketing** (333) La Crosse, WI Provides advertising svcs.	655%	$2,696	$357	C	D	38	8	1978
447.	**Lion Coffee** Honolulu, HI Roasts, packages, & distr. coffee	655	5,752	762	B	E	60	7	1979
448.	**Jenny Craig** (6) Del Mar, CA Operates chain of weight-loss centers	654	68,574	9,094	B	D	2,300	300	1983
449.	**Tom Walz** Tacoma, WA Mfrs. saw tips	654	754	100	C	C	25	5	1981
450.	**PC Warehouse** Marietta, GA Sells & svcs. computers & related equipment	653	5,513	732	D	E	22	3	1983
451.	**Walton Manufacturing & Rebuilding** Delphi, IN Fabricates steel	651	1,187	158	B	B	17	4	1983
452.	**Pauli's Discount Optics** Danbury, CT Sells specialty optic equipment	650	780	104	B	B	1	1	1978
453.	**Best Cuts** Cleveland Heights, OH Operates chain of hair salons	647	3,573	478	B	F	834	85	1984
454.	**Plow & Hearth** (275) Madison, VA Sells consumer products through mail order	642	6,385	860	E	F	54	20	1980
455.	**Phone Bank Systems** East Lansing, MI Provides fund-raising through telemkt.	642	838	113	A	F	3	2	1983
456.	**Frontier Engineering** (295) Stillwater, OK Mfrs. electronic instrumentation & engineering svcs.	639	21,632	2,929	D	D	425	95	1973
457.	**Micron Separations** Westborough, MA Mfrs. filter devices	635	5,021	683	B	F	55	20	1982
458.	**FiberCom** Roanoke, VA Develops fiber-optic communications systs.	633	17,719	2,418	D	C	169	19	1982
459.	**Helicomb International** (319) Tulsa, OK Mfrs. composite panels	632	5,771	788	C	F	85	25	1981
460.	**ORMEC Systems** Rochester, NY Mfrs. electronic motion controls	631	3,811	521	C	F	43	8	1982
461.	**Universal Computer** (156) East Rochester, NY Sells & svcs. computers	630	2,461	337	D	D	12	5	1983
462.	**Promar** (463) Rockport, TX Provides oil-field & offshore production svcs.	630	2,884	395	C	F	38	10	1979
463.	**New England Builder** Richmond, VT Publishes construction trade magazine	629	984	135	A	B	11	1	1982
464.	**RailTex** San Antonio, TX Manages & owns short-line railroads	629	14,206	1,950	C	C	88	15	1977
465.	**Planning Analysis** (382) Arlington, VA Provides information technology application svcs.	628	2,476	340	D	F	24	4	1981
466.	**Information Technologies** Richmond, VA Develops software	625	1,146	158	F	F	17	5	1981
467.	**Soltech** Shelbyville, KY Mfrs. accoustical & thermal products	623	8,038	1,111	D	E	138	16	1983
468.	**Pro-tech Industries** Vancouver, WA Mfrs. aluminum products	621	2,494	346	C	F	24	3	1980
469.	**Myers-Holum** New York, NY Provides accounting & consulting svcs.	621	2,811	390	D	D	55	4	1984
470.	**Symplex Communications** (26) Ann Arbor, MI Mfrs. data-communications equipment	620	16,532	2,297	A	F	77	20	1981
471.	**M. Lavine Design Workshop** Cold Spring, MN Mfrs. retail store decorations & fixtures	619	1,079	150	D	F	7	4	1981
472.	**Your Staff** Woodland Hills, CA Provides employee leasing svcs.	619	21,939	3,051	D	F	20	3	1979
473.	**Galison Books** New York, NY Publishes address books, journals, & posters	618	3,179	443	C	C	4	2	1978
474.	**Vanderveer Group** (212) Fort Washington, PA Provides mkt., consulting, & research svcs.	616	14,160	1,977	D	D	112	18	1979
475.	**RJE Communications** (118) Sunnyvale, CA Designs & mkts. microprocessor-based systs.	614	13,245	1,854	D	C	127	10	1981
476.	**Future Now** Cincinnati, OH Distr. computers	614	15,800	2,214	D	D	87	26	1976
477.	**O/E Automation** (245) Troy, MI Leases, sells, & svcs. office equipment	613	94,538	13,265	F	D	700	92	1979
478.	**National Communications** (146) Miami, FL Provides sales promotion svcs.	611	3,890	547	C	D	23	5	1982
479.	**Classic Graphics** Charlotte, NC Provides high-quality printing svcs.	611	1,813	255	D	D	22	6	1983
480.	**Glazen Communications** Cleveland, OH Provides advertising svcs.	611	8,576	1,207	E	D	36	5	1970

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]
481.	**Del Paso Pipe & Steel** Sacramento, CA Distr. pipe & steel	609%	$3,267	$461	D	C	12	4	1939
482.	**Northern Lights Enterprises** Wellsville, NY Mfrs., imports, & exports candles & gifts	607	1,061	150	D	D	40	1	1976
483.	**Gerber Alley** Norcross, GA Provides health-care information systs.	606	27,284	3,864	C	B	241	26	1983
484.	**Maresco International** Bridgewater, NJ Provides export mgmt. svcs.	605	5,190	736	D	D	9	2	1983
485.	**Ghafari Associates** (270) Livonia, MI Provides architectural & CAD svcs.	604	11,323	1,609	D	D	161	46	1962
486.	**C. Kirk Steele Insurance Services** Lake Forest, CA Provides insurance brokerage svcs.	603	1,899	270	E	C	7	4	1982
487.	**National Business Institute** Altoona, WI Provides direct-mail svcs.	601	5,241	748	D	F	37	20	1984
488.	**Quality "S" Manufacturing** Phoenix, AZ Mfrs. trailer hitches & accessories	593	9,270	1,337	B	B	110	20	1977
489.	**Industrial Restorations** East Petersburg, PA Provides contract painting & wall-covering svcs.	593	831	120	F	C	23	3	1982
490.	**Wright Travel** Nashville, TN Provides travel management svcs.	591	2,500	362	C	C	97	10	1981
491.	**Aquidneck Mgmt. Associates** (296) Middletown, RI Provides systs. mgmt. & consulting svcs.	589	10,597	1,538	E	C	237	45	1981
492.	**ComputerTech Integrators** Sacramento, CA Provides computer consulting svcs.	588	1,067	155	C	F	30	4	1980
493.	**Scioto Valley Hot Tubs & Spas** (196) Hilliard, OH Retails spas & hot tubs	588	3,418	497	F	D	22	5	1982
494.	**Superpumper** Minot, ND Operates convenience store chain	585	10,382	1,515	D	F	82	10	1983
495.	**Celebrity** Placerville, CA Mfrs. & distr. auto accessories	585	5,795	846	D	D	90	47	1961
496.	**Endless Vacation Travel** Grandville, MI Operates travel agency reservation center	582	19,191	2,813	F	D	180	6	1976
497.	**Softa Group** Northbrook, IL Mfrs. & mkts. computer-based solutions	581	2,840	417	C	F	41	10	1982
498.	**Bio-Diagnostics Laboratories** Torrance, CA Provides medical, clinical, & lab svcs.	579	3,472	511	C	F	65	15	1980
499.	**Qosina** Farmingdale, NY Mfrs. & distr. medical & cosmetic disposables	575	837	124	E	F	4	4	1980
500.	**INFOTEC Development** Santa Ana, CA Provides computer systs. & software engineering	573	46,117	6,856	D	D	720	175	1979

MIKE DITZ

Yousif Ghafari
Ghafari Associates Inc.
Architectural and engineering services

GROWING UP

Mother Homemaker
Father Tobacco company employee
Hometown Alma El-Chaab, South Lebanon
Education Masters degrees in math and in engineering
Jobs Engineer at another firm

MY COMPANY, MY SELF

Inspiration Japanese managers
Family in Business Wife, corporate counsel; cousin, VP of finance; sister, clerical; sister, sales
What's Changed "Bankers. Now, they're knocking on our door."
Lose Sleep Over Keeping employees happy as company grows
Workweek 50 hours
Last vacation This fall, to Europe
Use A PC? Yes
What's Next Open new offices

HOW THE INC. 500 WERE SELECTED

Putting together the INC. 500, like qualifying for the list itself, is a long-term project. As soon as one year's package is sent to press, the process begins again. We search for nominees by contacting accounting firms, venture capitalists, state development agencies, trade associations, and chambers of commerce. More than 20,000 potential candidates received nomination forms this year.

To gain a spot on the 1989 INC. 500, a company must have been independent and privately held on July 3, 1989, the day applications were due. This year's rankings are based on the percentage increase in sales from 1984 through 1988. Companies had to show at least $100,000 but no more than $25 million in sales for 1984 and had to register a sales increase between 1987 and 1988. Holding companies and regulated banks and utilities are not eligible.

Information on each application was verified by tax forms and by telephone conversations with company officials and their independent accountants—a task that falls mainly to our summer interns. If your company is on this year's list you talked with Katherine Apruzzese, a 1989 graduate of Dartmouth College; Duff Berschback, a junior at Kenyon College; Haley Collins, a 1989 graduate of Franklin and Marshall College; Christian Forman, a sophomore at Colby College; Kathryn Hann, a 1989 graduate of Temple University; Raquel Melo, a sophomore at Brown University; Jennifer Rapaport, a senior at Brown University; Timmie Walker, a senior at Georgetown University; or Wayne Woolley, a senior at Pennsylvania State University.

The INC. 500 is prepared under the direction of special projects editor Sara Baer-Sinnott and assistant research editor Deborah Weeks. Staff writer Leslie Brokaw wrote the profiles that appear among the listings.

The information published here is the only material that INC. will make available.

STEVEN LEWIS

Sara Baer-Sinnott, Deborah Weeks (center), and interns

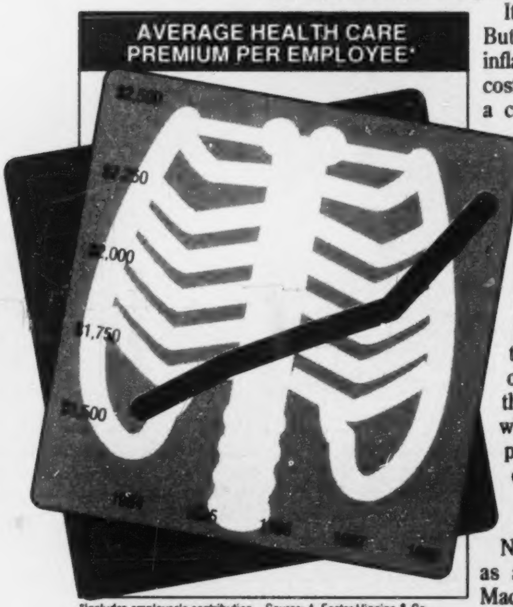
HELP WANTED

The rising cost of health care is hurting small companies everywhere. While there are no grand solutions, there are steps you can take to keep your costs down

BY STEPHEN D. SOLOMON

WANTED: chief operating officer for a dynamic West Coast engineering company. High-level position for nonsmokers only. Cholesterol level below 200 mg/dl, favorable LDH a must. No drugs, no fat, no high living. Salary commensurate with family health history. Apply to: Director of Employee Benefits, Box 990, Los Angeles CA 92312.

AVERAGE HEALTH CARE PREMIUM PER EMPLOYEE*



*Includes employee's contribution. Source: A. Foster Higgins & Co., New York City, 1988

It hasn't come to this. But with the general inflation in health-care costs, who could blame a company owner for fantasizing about placing such an ad? After all, annual premium increases of 20% to 40% have been routine in recent years. And many experts expect rates to rise an average of 15% a year over the next five years, which means that employer costs could double between now and the mid-1990s.

None of this comes as a surprise to Jim MacDougald. When he renewed his company's medical plan last year, the insurance company had raised the premium 70%. That was tough to take for a business with 25 employees and $4 million in sales. It was especially tough for MacDougald, chief executive of Applied Benefits Research Inc., because his Clearwater, Fla., consulting firm assists *other* companies with their benefit plans.

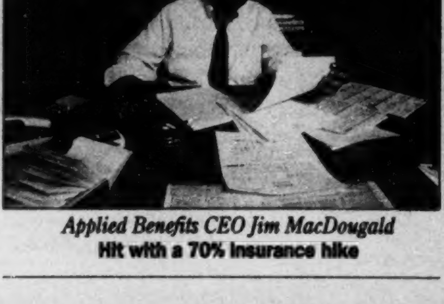
The reason for the hike: an employee's dependent was confined to a hospital with a long illness. Since no other insurer would touch MacDougald's company, "we got stuck," he says, "with paying any blackmail price they wanted to charge."

Being at the mercy of an insurer is fairly common for small companies these days. But MacDougald knew better than to let himself be whipsawed again. He's making changes in his medical plan, including various cost-containment programs and cost sharing with employees.

Unfortunately, though, not all cost-containment strategies are available to all companies. One variable is location; generally, businesses in densely populated states have the most choice. Another is size. Insurers offer companies with more than 100 employees a broader selection of medical plans than they do smaller companies.

Still, most CEOs owners can follow Jim MacDougald's lead and take steps to reduce their premiums, or at least limit the rate of increase. And they can do it without gutting their plans or compromising the care their employees receive.

While the steady increase in health-care costs is a tide that no single company can turn back, there are strategies to help you manage these costs more effectively. Yet the most successful CEOs go beyond what's written in an insurance contract. They give employees an incentive to be involved in the *company's* health. Whether it be because of profit sharing, information sharing, equity participation—or all three—these employees are cost conscious not only about health care but about every phase of the business. Holding down costs is to their advantage as well as the company's.



RICK FERRO/BLACK STAR

Applied Benefits CEO Jim MacDougald
Hit with a 70% insurance hike

CHARTS: ELIOT BERGMAN

WHEN YOUR COMPANY'S TOO SMALL TO GET DISCOUNTS: HEALTH-CARE COALITIONS

What group of 125,000 people has received increases of only 21% in their health-insurance premiums since 1984? A big company with the muscle of, say, Mobil Corp. or Procter & Gamble Co.? Wrong. It's a coalition of 6,400 small companies in the Cleveland area whose $105 million in annual premiums speaks the language that insurers can understand: size and power.

Companies with fewer than 100 employees get little attention in the insurance marketplace; they are the small fish that everyone throws back. Their choices are limited and they pay more for everything they do get. That's why, in 1974, the Council of Smaller Enterprises (COSE) in Cleveland, part of the Greater Cleveland Growth Association, bargained with Blue Cross/Blue Shield of Ohio for a 10% discount on the cost of group health-care benefits for its member companies.

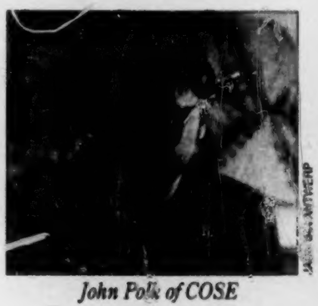
The plan was not very successful; between 1978 and 1982, premiums soared by 130%. So COSE tried a different tack. Instead of acting simply as a conduit through which its members bought insurance, COSE itself became the customer, looking to all the world like a *Fortune* 500 company. Premiums dropped 15% in 1985, the first full year under the new plan, and in the next four years rose by an average of less than 9% annually—at a time when increases nationwide were running 20% to 40%.

COSE's performance reflects the realities of an insurance marketplace in which size and power are next to godliness. It negotiated a variety of sophisticated plans with various cost-control features and took over administration of the plans, including centralized enrollment, billing, and reimbursement. Insurers charge between 5% and 15% of the premium for administration costs; COSE charged less than 1%.

"For many small companies, the only hope they have to bring costs under control lies with the formation of purchasing groups," says John Polk, executive director of COSE. But coalitions need not be as big as COSE to be effective. A handful of other purchasing groups flourishes around the country, usually organized by local chambers of commerce. In terms of bargaining clout, a chamber is often more effective than an industry trade association because of its ability to concentrate its power on local providers.

Apart from the advantages conferred by size, a coalition is most effective if it does three things:

- Negotiates the plans as if the coalition itself were the customer.
- Administers the plans itself or uses a low-cost third-party administrator.
- Manages the claims information, which will enable it to identify ways to further cut costs.



John Polk of COSE

Favors purchasing groups

HOW DID YOU CHOOSE YOUR AGENT?

Chances are good that you went with the insurance agent who sent you a pitch letter and a proposal. And you'll probably dump that person when another agent arrives with yet another promise to lower the cost. But there is a better way: consult with local companies of about your size. Have they used their agent for at least three years? Has their agent been aggressive in incorporating cost-saving mechanisms? Then, of course, interview the agent. Consider your decision as carefully as if you were hiring a key person for your company—because you are.

WHEN YOU HAVE A GOOD CLAIMS RECORD AND PREMIUMS STILL SOAR: SELF-INSURANCE

In many circles, self-insurance is regarded as a high-risk gambit best suited for poker players with a steady hand. While self-insurance isn't for every company, if you have a good claims record and more than 100 employees, you should at least consider it—especially if your premiums are climbing steeply. You may be able to do much better simply by paying the claims as the bills come in. (Companies with fewer than 50 employees are beginning to organize into self-insurance cooperatives; see Hotline, page 26.)

Sandmeyer Steel Co., in Philadelphia, found itself in that position five years ago. Its annual claims, or loss ratio, were about 70% of the premiums it was paying, which means that the insurance carrier was keeping 30% of the premiums for administrative expenses and profits. Since an 80-20 loss ratio is usually considered fair, the insurer was keeping more than its share. The company, whose 140 employees make stainless-steel products for manufacturers, decided to self-insure.

President and CEO Ron Sandmeyer reports that the company has saved at least 10% a year on its health-care costs. The biggest saving, 5% or more, comes from the lower cost of administration—third-party administrators, companies that handle paperwork on self-insured plans, charge up to half the rate of insurance companies. In addition, self-insured companies don't pay state tax on premiums or cover certain state-mandated insurance benefits, such as psychiatric care, though they may elect to have this coverage. Finally, self-insured companies don't have money tied up in reserve accounts with an insurance company; when Sandmeyer Steel self-insured, it got about $100,000 back from its carrier.

No company should self-insure without buying stop-loss insurance, which puts a lid on what it will pay out in claims. A 100-employee company, for example, might buy stop-loss to pay individual claims over $25,000 or the year's aggregate claims above $300,000. To calculate the aggregate, insurers usually add 20% to the prior year's claim record to adjust for industry trends, then another 20% to 25% in margins.

With stop-loss, companies can limit the risks of self-insurance and budget at the start of each year for the maximum possible claims. Experts urge companies to establish their own reserve funds so that an unexpectedly high claim or a drop in cash flow doesn't leave employees waiting months to be reimbursed for their claims. *(continued)*

LEIF SKOOGFORS/WOODFIN CAMP

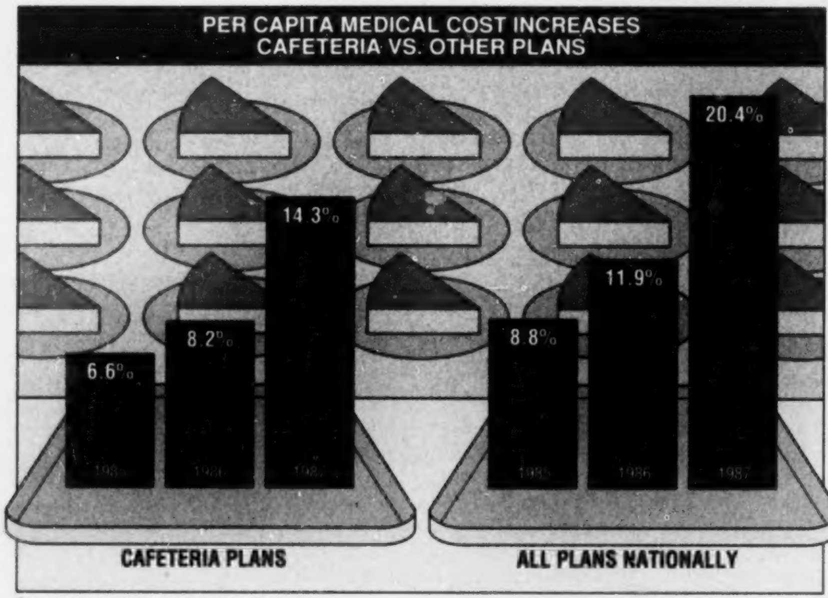
CEO Ron Sandmeyer

Saves 10% a year on costs

WHEN YOU WANT TO CONTAIN COSTS AND LET EMPLOYEES PICK THEIR BENEFITS: CAFETERIA PLANS

Employees of The Bank Mart will each tell the personnel department what benefits they want in 1990. Just as they did in 1989.

The mutual savings bank, in Bridgeport, Conn., started a cafeteria plan a few years ago for its 220 employees. Once an option only for large companies, cafeteria plans are now routinely available for companies with as few as 50 employees. In cafeteria plans—also known as flexible benefits—the employer's contribution usually comes in the form of a spending credit, which the employees use to "purchase" various options from a menu of benefits. One person might choose more health insurance and less life insurance; another, less healthcare and more life and disability coverage.



Source: Hewitt Associates, Lincolnshire, IL, 1989

For employees, this flexibility is attractive because they can tailor their benefits and levels of coverage to their own needs. For companies, it can mean savings on health-care costs. In a survey last year by Hewitt Associates, a benefits consultant in Lincolnshire, Ill., per capita medical costs for cafeteria plans rose 14.3% in 1987, compared with 20.4% for private plans nationally.

The Bank Mart's experience shows how flexible plans can achieve these savings. Under its plan, the number of employees who opted out of medical coverage (because they were covered by their spouses' plans) increased from 10 to more than 30. "Before, 20 people were taking it simply because it was given to them," says Carol Levey, manager of compensation and benefits.

Other employees chose lower-cost medical options, such as higher deductibles and copayments, and used the credits they saved on something else. This brought immediate reductions in the cost of health coverage. And the company will likely see more reductions in the future, since cost-sharing usually reduces overuse of medical services.

Even greater savings could come later because the company, if it chooses, can avoid the full burden of future increases in medical costs. The plan moves it away from the traditional defined benefits approach—we'll provide certain benefits, no matter what the cost—to a defined contribution approach. Each year, The Bank Mart will set its level of contribution to the entire benefits package, most of which goes to the medical plan; if the cost of medical coverage increases 20%, for instance, the company might raise its contribution by only 10%, leaving to employees the choice of either spending more of their own dollars or opting for a less expensive plan.

"We know that down the line, costs are increasing," says Levey. "I have a feeling that in 1990, we will be sharing more costs with employees."

BARRY TE

Benefits manager Carol Levey
Flexible coverage works.

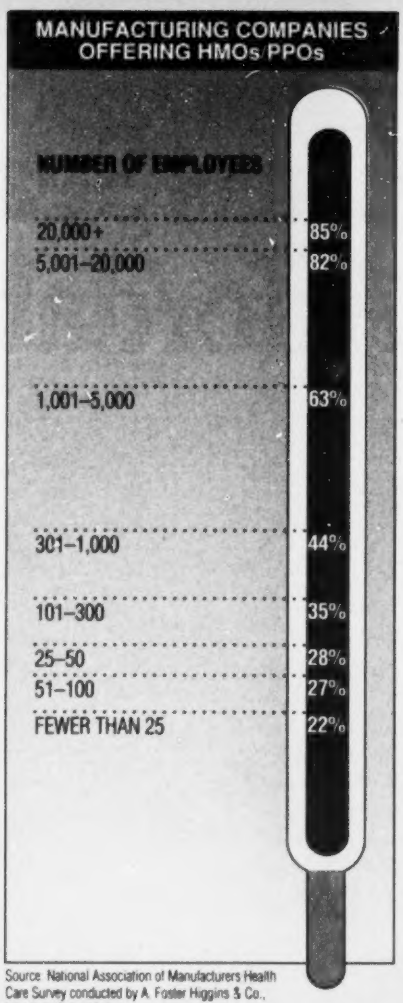
WHEN YOU'RE LOOKING FOR ALTERNATIVES TO YOUR INDEMNITY PLAN: HMOs and PPOs

The news was bad for Tassani Communications: last April the company's insurer gave notice of a 50% increase for the plan year. Desperate to contain costs, the $25-million, 60-employee company scrapped its indemnity plan for a preferred provider organization, or PPO. The premium increase declined to 30%, still high but several thousand dollars less each month than the indemnity plan.

Tassani joins a growing number of companies offering managed care, which includes PPOs and health maintenance organizations, or HMOs. More than 60 million Americans are enrolled in managed care, most of them in plans offered by large companies. Fewer than a third of the small manufacturers in a National Association of Manufacturers survey offered HMOs or PPOs in 1989.

But they soon will. Insurers that once ignored the small end of the market now are competing to sign up companies with as few as two employees. The reason for small companies to heed the new pitch is compelling—managed-care plans usually save money. In addition, enrollment in a managed-care plan enables small companies to avoid much of the cost shifting now going on in the market (see "Negotiate the Best Deal," page 151).

The traditional medical plan, now slowly fading away, is an indemnity program in which providers are reimbursed on a fee-for-service or a cost-plus basis. Employees are free to choose their own physicians and hospitals. That the cost of these


MANUFACTURING COMPANIES OFFERING HMOs/PPOs

Source: National Association of Manufacturers Health Care Survey conducted by A. Foster Higgins & Co., New York City, 1989

programs has soared should come as no surprise: there are no restraints on use of medical services or on fees charged by providers.

Managed care is supplanting the traditional plan because it is designed to contain costs. Here is a brief guide:

HMOs

HOW THEY WORK: HMOs receive a set annual fee for each enrollee, which gives them an incentive to deliver cost-effective care. Employee payments are limited to about $5 for each visit to a doctor's office. Each patient has a primary physician who controls access to medical services.

YOUR SAVINGS: This varies widely. Some companies report no savings at all, but generally you can expect a 10% savings over the cost of a traditional indemnity plan. Some companies may save as much as 40% if local HMOs are competing vigorously for market share. Premium increases may also be lower. For example, Cigna Corp. reports that its HMO premiums increased an average of 9% a year between 1983 and 1988, compared with 18% for indemnity plans.

WHAT TO LOOK OUT FOR: Check the HMO's reputation for delivering quality care. Also, check its history of premium increases. Beware, too, of offering a choice of an HMO or an indemnity plan. Younger, healthier employees tend to select the HMO, while older, less healthy people become concentrated in the indemnity plan. Indemnity premiums go up as a result—often negating any advantage of the lower HMO rates. The solution is to contract with an insurer that offers both an indemnity plan and an HMO and will base rates on the history of all your employees together.

PPOs

HOW THEY WORK: A network of physicians and hospitals agrees to a fee schedule that usually represents a 10% to 20% discount on their usual charges. The physicians may also agree to a set of procedures designed to keep costs down. Employees can use non-PPO providers, but companies provide incentives—lower deductibles and copayments—to encourage them to stay within the PPO network.

YOUR SAVINGS: You can expect to pay 5% to 10% less than the cost of an indemnity program. If you offer very low deductibles and copayments or waive them entirely—which many companies do when they introduce the program—you may realize no savings at all.

WHAT TO LOOK OUT FOR: Does the PPO have a reputation for quality care? Does it have broad coverage geographically and by specialty? Check the PPO's history of premium increases, since they usually can't control the use of physician services very well, especially when deductibles and copayments are low. "Utilization can go up like crazy," says Larry Tucker, a partner and benefits consultant with Hewitt Associates. The remedy: raise deductibles and copayments, while still maintaining a financial incentive for employees to use the network.

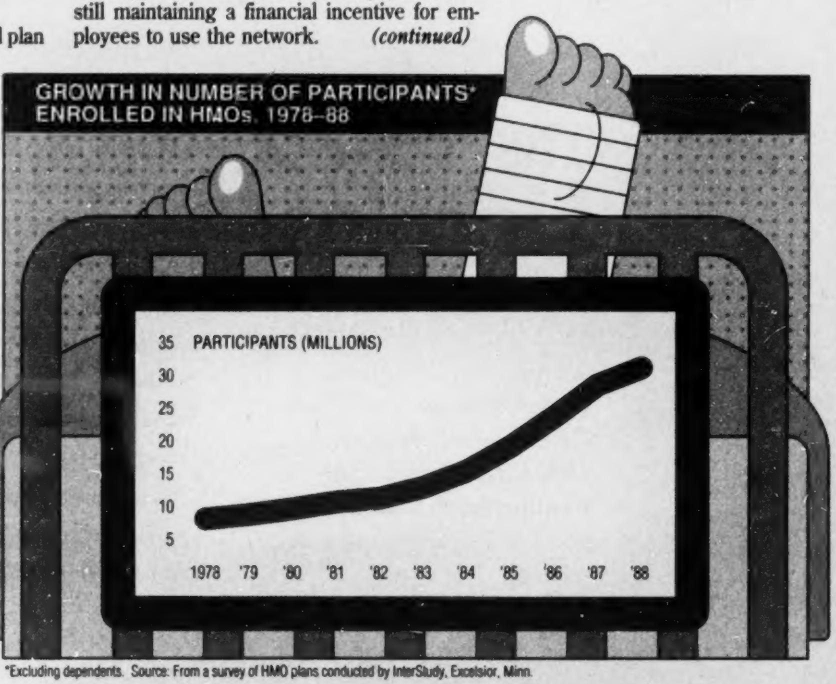
(continued)

CHECK YOUR DEPENDENT-CARE POLICY

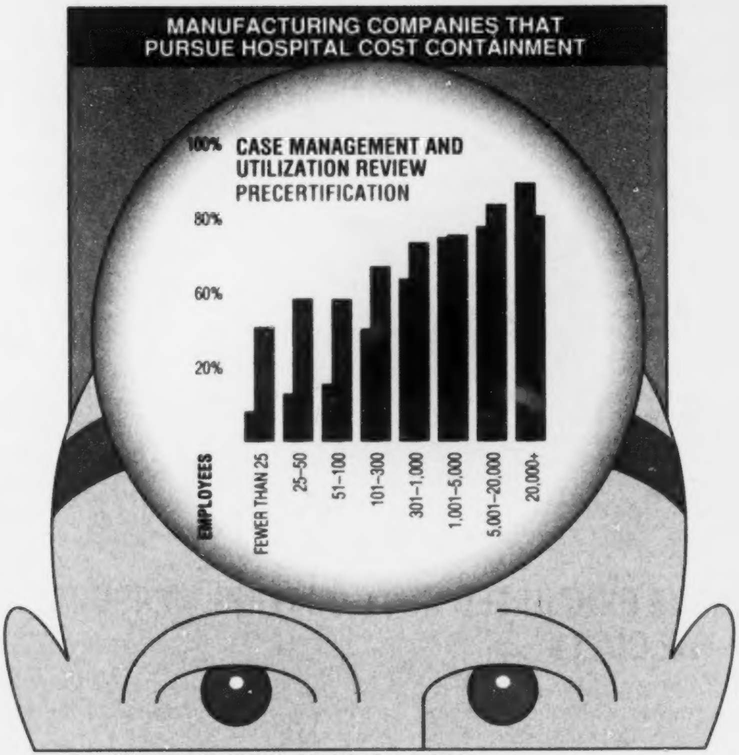
If many of your employees have working spouses, you may want to think through your company's dependent-care policy. When dependent coverage is essentially free, employees may be taking it even though their spouses are covered where they work. So the extra $2,000 or so that your company spends in those cases is wasted. In other instances, the employer of the spouse may be charging for dependent coverage—so if you are providing it free or at a nominal charge, the dependent coverage will end up on your account. The trick is to come up with an amount to curb these problems that is still reasonable for sole breadwinners.

JACK VAN ANTWERP

CEO Sally Tassani
Opted for a PPO


GROWTH IN NUMBER OF PARTICIPANTS* ENROLLED IN HMOs, 1978–88

*Excluding dependents. Source: From a survey of HMO plans conducted by InterStudy, Excelsior, Minn.



Source: National Association of Manufacturers Health Care Survey conducted by A. Foster Higgins & Co., New York City, 1989

ENLIST EMPLOYEES IN YOUR STRATEGY

Few cost-containment strategies are more effective than frank and frequent communication with employees. Smart managers routinely tell employees how much the company spends on medical care and how costs have gone up over the years. Without such information, many employees probably think of health care as "free" in the sense that some faceless insurance company is paying the bills.

Once employees see the relationship between company savings and the resources available for raises, bonuses, and profit sharing, their health-care decisions can change dramatically. And you can help influence those decisions by pointing out the cost savings of using a primary physician or clinic instead of an emergency room for routine care, buying generic drugs, and examining bills for overcharges.

WHEN YOU THINK HOSPITAL BILLS ARE TOO HIGH: UTILIZATION REVIEW

Mark Kaplan is holding two versions of a hospital bill in his hands. Nothing unusual in the first one: tubal ligation, a stay of two days. The hospital wants $3,580.05.

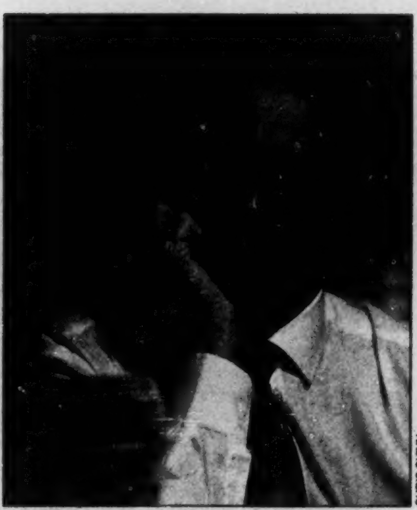
Most companies would pay the bill. Kaplan, director of human resources at Mandel-Kahn Industries Inc., sent it out for an audit instead. The second bill, postaudit, he did pay: $2,696.91. After the cost of the audit, the company saved 16%.

This is routine for Mandel-Kahn, a Houston-based distributor with 800 employees. Every audited hospital bill comes back with savings of at least 15%, and the hospitals don't dispute the new figures. Most of the savings come from reduction of charges that are above the usual and customary, but others are for services that were never performed. "I've had male patients charged for vaginal examinations," says Kaplan. "We've been charged for hospital stays when there wasn't any stay at all."

Auditing the work of health-care providers is part of a broad strategy known as utilization management, which attempts to limit costs by overseeing the length and necessity of hospital stays and many outpatient procedures. The services are provided by many insurance companies and by an array of vendors whose largest player, Intracorp, of Berwyn, Pa., covers 25,000 employers and 11.5 million people. A study published last year by *The New England Journal of Medicine* found that one insurer's program had slashed medical bills by 8.3% for 222 patient groups. And Mandel-Kahn hasn't had a rise in medical costs since 1985.

Utilization review began in the 1970s when many health plans required second opinions before surgery. Today it includes a variety of initiatives:

- **Precertification review.** The centerpiece of the strategy, the review takes place before hospital admittance and is an attempt to prevent unnecessary hospitalizations and limit the duration of hospital stays. Where appropriate, it shifts procedures to less expensive outpatient facilities.
- **Concurrent review.** Once hospital treatment starts, this review controls the length of stay and makes sure the treatment is medically appropriate.
- **Case management.** Broader than concurrent review, it monitors care throughout a catastrophic illness.
- **Mental health and substance abuse-care review.** Various strategies are employed to con-



CHRIS SHINN

Human resource director Mark Kaplan
Was charged for nonexistent hospital stays

READ THE FINE PRINT

If you're looking for ways to cut health-care costs, one place to start is by examining your current policy—something few executives do. Gust Headbloom, owner and CEO of Apex Broach & Machine Co., a tool and machine manufacturer in Detroit with 51 employees and $6 million in sales, was surprised at what he found in his. Headbloom discovered that his insurer had been routinely billing the company for what struck him as an unusual item—maternity benefits for the company's retirees. His retirees were a lively bunch, to be sure, but Headbloom decided to save the $2,623 a year just the same. "We realized that these rascals just weren't playing around anymore," says Headbloom.

trol soaring costs of care in this area.

■ **Hospital bill audits.** This strategy tries to cut the cost of care by finding overcharges.

Many of these services cost a few dollars a month per employee, but they often save multiples of that. Used by big companies for years, they are available now to businesses with as few as 50 people.

Last year a Mandel-Kahn employee was seriously injured in an automobile accident. Not willing to accept the hospital's charges at face value, the company sent the bill to Intracorp, which conducted an on-site audit. Here are the results:

AUDIT RESULTS (for explanation of charges, see "Facts Behind the Audit," below left)

Total bill	$19,612.74
Less	
Personal items	1.85
Undocumented items	690.90
Charges more than fair and reasonable	5,281.11
Charges unrelated to carrier's responsibility	-0-
Not medically necessary days/services	-0-
Mathematical errors	-0-
Plus	
Undercharges	325.30
Savings	5,648.56
Total recommended payment	13,964.18
Less previous payments	15,650.24
Total due	**$1,686.06** credit

FACTS BEHIND THE AUDIT

1. **Total bill**
   This is what the hospital charged for the patient's stay.
2. **Undocumented items**
   Eliminated charges for 23 separate items and procedures that either were undocumented or not performed at all. One such procedure was a chest X-ray billed at $64; another was for seven wound dressings billed at a total of $173.20.
3. **Charges more than fair and reasonable**
   Reduced charges, often by half or more, for 81 separate entries. For example, the hospital billed five units of anesthesia at $93.20 each, far above the fair and reasonable cost of $37.50 each; it billed crutches at $65.65 when the fair and reasonable was $31.80; it charged $150 for a drainage instrument whose fair and reasonable was $50.75.
4. **Undercharges**
   Picked up items that the hospital failed to charge, and these were added back into the bill. Many of these were medications.
5. **Savings**
   Net overcharges represented 29% of what the hospital billed. Even after the auditing charge of $590, the company saved 26%.
6. **Total recommended payment**
   What the auditor says the company should pay.
7. **Less previous payments**
   The required payment to the hospital of about 80% of the bill before the audit.
8. **Total due**
   In this case, it's the hospital that owes some money.

WHEN YOU'VE EXHAUSTED COST-CUTTING MEASURES: SHARING THE COSTS

Raising the cost to employees—it's the fastest way for a company to reduce its health-care expenditures. And unless it's handled carefully, it's also the one most likely to cause a rift in management-employee relations.

Companies have several ways to pass on costs to employees. One of the more common practices is to require employees to contribute more to the premium, which reduces the company's cost dollar for dollar.

They also can require employees to pay more for each visit to a health-care provider. One way is to raise the copayment—the percentage that the employee pays for each claim—from, say, 10% to 20%.

Or they can raise the deductible. Raising the deductible from $100 to $250 will slice 8% to 10% off a health-care premium; raising it to $500 will lop off another 10% or so. Companies often reap additional savings because employees who share the costs are likely to use medical services in a more cost-effective way.

A $100 deductible used to be the standard, and still is in certain parts of the country, such as the Northeast. But that is changing. "We used to have 80% of our business in $100 deductibles, but now, more than half is in $250," says Howard Bolnick, president of Celtic Life Insurance Co., one of the leading small-company insurers. "I would expect to start seeing more and more $500-deductible plans being sold."

The idea behind higher deductibles is straightforward enough: employees should insure themselves for the small claims, as they do with auto insurance, and depend on their insurer to cover the bigger or recurrent claims that might be beyond their ability to pay. But raising deductibles to $250 or $500 could severely hurt many lower-paid employees. Some experts suggest implementing a progressive scale that pegs deductible levels and employee premium payments to the level of compensation.

Any plan that takes more dollars out of an employee's pocket can run the risk, of course, of damaging workplace relations. To help reduce the resentment, companies might consider the following strategy:

ANDY GOODWIN

Insurer Howard Bolnick
Sees a trend toward higher deductibles

■ Try other cost-containment measures before looking to employees for a bigger contribution. If you find that you still have to cut down on costs and choose to seek more money from employees, at least you will have established a good-faith attempt to look for other solutions first.

■ Lay a careful foundation for any change in contribution levels. Explain to employees how much their health insurance costs, how much premiums are rising, and how those costs affect the company's profitability and competitiveness.

(continued)

WHEN YOU'RE LOOKING FOR A LONG-TERM STRATEGY: WELLNESS PROGRAMS

Many companies are beginning to see that the personal habits and lifestyles of their employees can have a major impact on health-care costs. That's why more and more now forbid smoking in the workplace or refuse to hire smokers at all.

BOB BARRETT/GAMMA

Personnel director John Gibson
Hires only nonsmokers

In a landmark study of its health-care claims from 1980 to 1982, Control Data Corp. found that high-risk employees—those who smoked, had high blood pressure, were overweight, or rarely exercised—cost the company hundreds of dollars more every year in medical claims than their low-risk colleagues.

Slowly, health insurers are beginning to believe numbers like these. Now, the Travelers Insurance Co., for one, offers discounts of up to 12% for companies of 10 to 49 employees if they rate favorably on several risk factors. John Alden Life Insurance Co., in Miami, offers similar discounts for companies of 25 or fewer employees in the Southeast. And the Greater Oregon Health Service provides its own wellness program to 25 small businesses in the state; if claims for any of the companies fall below a predetermined level, the carrier returns half of the savings to them. Greater Oregon reports that the average company participating in its wellness program saves about $167 per employee per year in health premiums compared with companies that don't participate.

Wellness programs need not strip the treasury bare. Many companies take advantage of free or low-cost screenings and workshops offered by the community outreach programs of local hospitals and by nonprofit health organizations such as the American Heart Association, the National Cancer Society, and the March of Dimes. A fitness program need be no more than the cost of a VCR and a few tapes, or the purchase of T-shirts for employee sports teams.

Companies can spend much more, of course. Maupintour Inc., a vacation tour company with 165 employees, built a small fitness center at its headquarters in Lawrence, Kans., in 1981, outfitting it with a treadmill, stationary bikes, weights, sauna, and lockers. The company hires only nonsmokers, bans smoking in its offices, and sponsors sports teams. The cost of the entire program last year was about $5,000. Maupintour hasn't studied its return on investment in wellness, but personnel director John Gibson says, "Our health-insurance rates haven't gone up like other companies in the area."

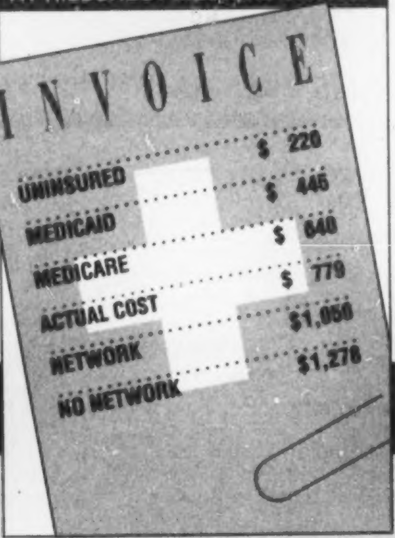
(continued)

NEGOTIATE THE BEST DEAL

You're probably picking up the tab for someone else's "deal." All you need to do is look at the costs of a day's care in a typical hospital, Tulsa's Hillcrest Medical Center. The hospital's average daily expense was $779 last year. A small company's medical plan, though, probably paid something like $1,278.

Hospitals like Hillcrest cut low-cost deals with many parties, then make up for their loss of revenue by shifting their costs to someone else. Uninsured patients paid only $220 per day of the average $779 cost of care at Hillrest last year. And the federal government paid only $445 a day for patients on Medicaid and $640 for those on Medicare. To meet its budget, Hillcrest shifted the costs to private employers. Those within networks such as HMOs negotiated rates of $1,050 a day—far more than the average cost, but still favorable compared with the $1,278 charged to companies with traditional indemnity plans.

ONE DAY'S COST FOR PATIENTS AT HILLCREST MEDICAL CENTER



UNINSURED	$ 220
MEDICAID	$ 445
MEDICARE	$ 640
ACTUAL COST	$ 779
NETWORK	$1,050
NO NETWORK	$1,278

Source: Hillcrest Medical Center, Tulsa, Okla.

HOW TO PUT TOGETHER A WELLNESS PROGRAM

Before starting your own, here are some things to consider:

- **Be sure employees want the program.** They should understand its purpose. Distribute a questionnaire asking for their suggestions.
- **Target the right people.** "Don't preach to the committed," says Charles Kuntzleman, program director of Fitness Finders Inc., in Spring Arbor, Mich., which designs corporate wellness programs. "You want to get the mass in the middle who dabble in New Year's resolutions."
- **Go beyond exercise programs.** They often are the first choice of wellness planners, but good programs go beyond that. Work on smoking cessation, weight loss, cholesterol reduction, detection and treatment of high blood pressure, good nutrition, the use of seat belts, treatment of substance abuse, and prenatal health, among others.
- **Charge employees.** For added motivation, you can bill employees for some of the programs, with reimbursement if they reach specified goals. You might charge $50 for a series of 10 stop-smoking classes but return $5 for each class attended and give a bonus to each person who quits smoking.
- **Talk up the program.** Acquaint employees with the wellness program least three months before it starts. Use bulletin boards, newsletters, stuffers in paycheck envelopes, and the like.
- **Look for freebies.** Local nonprofit health organizations may provide booklets, speakers, and even diagnostic testing for free or for a minimal charge.
- **Make a long-term commitment.** While esprit de corps may improve right away, it's doubtful that you'll see any cost savings anytime soon. It may take five years or more for that to happen. ☐

ONE COMPANY'S SUCCESS IN LOWERING ITS HEALTH-CARE COSTS

EFP Corp. bucked the trend in a big way. Its cost of health-care claims per employee dropped 42.3% over the past two years, from $1,604 to $925. During the same period, other U.S. companies experienced cumulative increases of 40% to 80%. Here's what the Elkhart, Ind., manufacturer of polystyrene products, which now has 230 employees, has done over the years.

In 1979, when EFP had 100 employees, it began to self-insure. That helped to restrain expenses for a while. But claims costs again spiraled out of control, rising nearly 24% in the 1985–86 plan year. EFP decided to redesign its plan—radically.

Until then, the company had had a very generous policy. It paid nearly all costs after a $100-per-year deductible and limited annual out-of-pocket expenses to $1,000. But employees struggled with all the small print and exclusions. "Nobody knew what the plan said," recalls Charles Speas, the director of personnel. "Things were so confusing that people didn't know if they had it good or not. So our first job was to simplify it."

Along with simplification came a different kind of cost sharing. Other companies in the same situation usually raise the deductible and require employees to pay part of the premium. Instead, EFP eliminated the deductible and required employees to pay 25% of each claim. The annual cap on out-of-pocket expenses was set at $2,000 per person or family.

A year later EFP put together its own informal preferred provider organization, or PPO (see box, "When You're Looking for Alternatives to Your Indemnity Plan," page 142). Only insurers and large companies are supposed to have the muscle to hammer out these arrangements, but Speas had no trouble implementing his own limited strategy. Instead of targeting hospitals and individual physicians, as PPOs usually do, Speas arranged 10% to 15% discounts with three local clinics.

The results were dramatic. Claims cost per employee dropped 39% in 1986–87, from $1,604 to $978, and another 5.4% the following year, to $925.

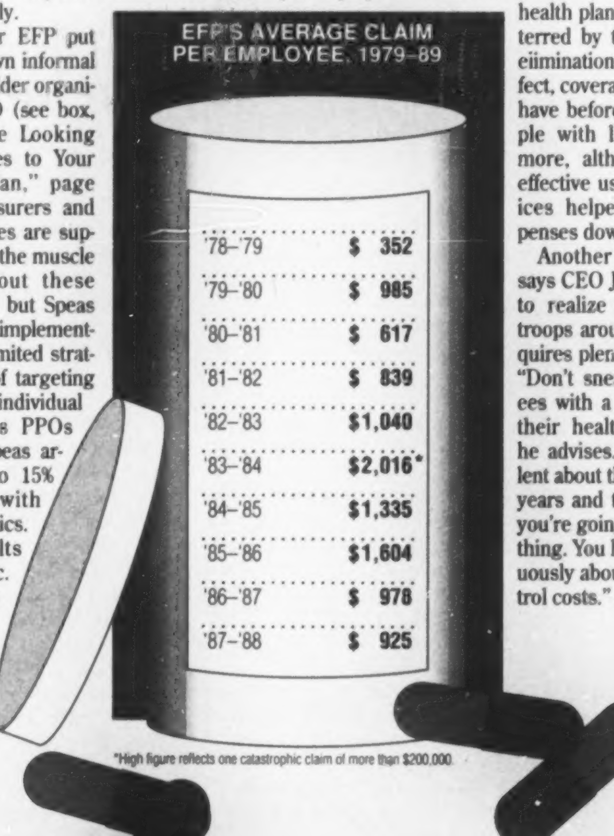
Why did the plan work so well? Simplicity is one answer. "A person can't save money on health care if he can't understand the plan," says Speas. Also, the incentives now were clear: the 25% copayment, starting with the first dollar of coverage, motivated people to comparison shop. "We didn't have to preach to them about being conservative," says Speas. "The plan gave them the incentive to do that."

Visits to emergency rooms, for instance, dropped sharply. People who had used them for routine care now went to the clinics, which were open evenings and weekends and charged a third as much as the hospitals. The PPO saved $5,000 in physician fees the first year and $17,000 the second. Speas routinely circulates comparisons of costs at various hospitals and passes along information about such things as generic drugs. "We show them ways to save, instead of forcing it on them," he says.

The plan didn't mean higher costs for all employees. Almost half had barely used the old health plan at all, perhaps deterred by the deductible. Its elimination gave them, in effect, coverage that they didn't have before. Only those people with large claims paid more, although more cost-effective use of medical services helped hold their expenses down.

Another key to success, says CEO James Chandler, is to realize that rallying the troops around a new plan requires plenty of groundwork. "Don't sneak up on employees with a radical change in their health-care program," he advises. "You can't be silent about the problem for five years and then suddenly say you're going to change everything. You have to talk continuously about the need to control costs." ❑

EFP'S AVERAGE CLAIM PER EMPLOYEE, 1979–89



'78–'79	$ 352
'79–'80	$ 985
'80–'81	$ 617
'81–'82	$ 839
'82–'83	$1,040
'83–'84	$2,016*
'84–'85	$1,335
'85–'86	$1,604
'86–'87	$ 978
'87–'88	$ 925

*High figure reflects one catastrophic claim of more than $200,000.

GO OVER EMPLOYEES' CLAIMS

To help you identify areas of potential savings, you should ask your insurer to send claims information to you, preferably on a quarterly basis. Are your employees using expensive emergency-room services instead of seeing a private physician? Are there big prescription costs that could be cut by using generic drugs or ordering by mail? The next step is to suggest lower-cost alternatives that will save money for employees—and you.

Receiving and acting on claims information is especially important for companies with more than 100 employees because insurers analyze the previous year's claims before setting the premium for the new year. Companies with fewer employees are placed in a pool to determine premiums, but claims information will still be useful if you decide to shop for another insurer. Many won't consider covering a company that can't provide a claims history.

ROARK JOHNSON

EFP's Chandler and Speas
They cut costs by 42%.

HANDS ON

A Manager's Notebook

ENVIRONMENT

NEW YEAR'S RESOLUTION

If a recycling program strikes your fancy but you haven't got a clue where to start, there's a set of guidelines available to get the ball rolling in 1990. And it's free.

Hot off the presses of Rhode Island Solid Waste Management Corp.—a quasi-state agency that manages almost all of Rhode Island's solid waste and also works with corporations and local governments to set up reduction and recycling programs—is a "source reduction poster" that provides suggestions about how you can control waste in your office, production, shipping, and cafeteria areas.

The hands-on waste-management suggestions include: getting off unwanted junk-mail lists with a simple phone call, supplying employees with coffee mugs rather than paper cups, and encouraging suppliers to use environmentally sound packaging material. The other side of the poster features similar advice for controlling waste in the home.

The advice isn't easily overlooked. It's printed as a large poster to help keep everybody vigilant.

Write: Rhode Island Solid Waste Management Corp., West Exchange Center, 260 West Exchange St., Providence RI 02903. There is a $2 fee for additional copies if your business is based outside Rhode Island. ❑

INTERNATIONAL

WHAT NEXT?

Do Europeans believe their unification in 1992 will protect Europe from its two major trading partners – Japan and the United States?

Predict more protection	36%
Predict about the same protection	34%
Predict less protection	26%

Source: [illegible] European executives, politicians, and other opinion shapers surveyed by The Roper Organization Inc., New York City, July 1989

RESOURCE

SOCIAL READING

To give what is perhaps the most underappreciated of all benefits its due, there is now a booklet available called "A Look at Social Security—1989." It is prepared and published by A. Foster Higgins & Co., an employee benefits consulting firm.

The easy-to-read publication clarifies the fine print of payments and privileges and includes worksheets and a form your employees can use to request a personal benefit estimate from the federal government. It's a real bargain for four bucks. Write: Lisa Bell, A. Foster Higgins & Co., 125 Broad St., New York NY 10004. ❑

RECRUITING

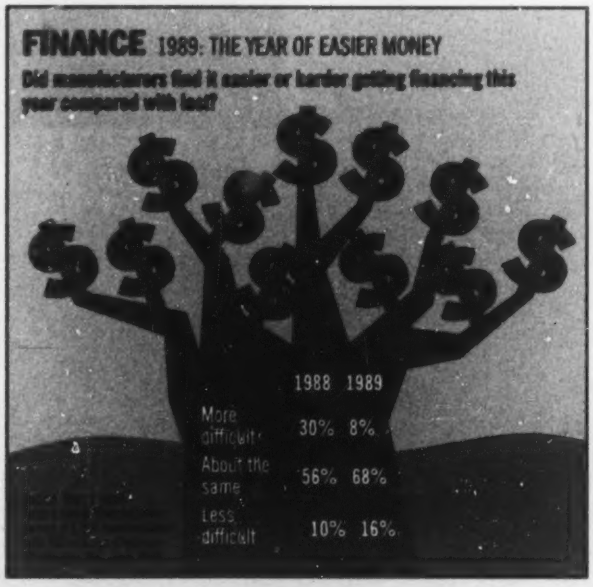
A HOME AWAY FROM HOME

When push comes to shove in a tight labor market, recruiting farther afield is certainly an option, but how much farther afield? If you want the new recruits to stick around, John Leehman recommends that you look in "areas where the climate is similar to yours and the market is depressed."

Leehman, executive vice-president of Bread Loaf Construction Co.—a 160-person business in Middlebury, Vt., in the heart of New England's ski region—considered both Denver and Houston as possible recruitment sites since the construction market was flat in both cities. Because Houston's climate differed so dramatically from Vermont's, Leehman ultimately decided to place a newspaper advertisement in ski-happy Denver.

It worked. Résumés flooded Bread Loaf's mailbox. Leehman spent two days in Denver interviewing approximately 30 candidates. Ultimately, he hired four employees.

In the ensuing two years, one did leave after his first six months and another eventually yearned for home and returned to Denver, but, Leehman insists, "For the cost of a hotel room, plane ticket, and 30% of their relocation costs, it was worth it." ❑



FINANCE 1989: THE YEAR OF EASIER MONEY

Did manufacturers find it easier or harder getting financing this year compared with last?

MANAGING PEOPLE

REST AREA

To minimize employee wear and tear, if an out-of-town job spills over from Friday to Monday for an Electronic Liquid Fillers Inc. employee, he gets an extra week's pay for spending the weekend in the city of the job site. CEO Jim Ake figures the expense is incidental when the payoff is having a refreshed employee on the job at 7:00 a.m. Monday morning.

Six to eight times a year each member of Ake's 33 bottling machine sales and installation staff spends weekends working away from the $11-million LaPorte, Ind., company. "Given the choice between flying back and forth or staying over, 9 times out of 10 they'll stay over," says Ake, who would just as soon see the money saved on the plane ticket—usually about a week's pay—go into the employee's pocket.

"They're on the road so much that it's not the kind of policy that's abused," says Ake. "But they do appreciate it." ❑

CHARTS: CYNTHIA DAVIS

EMPLOYEE RELATIONS

FIRST THINGS FIRST

Instead of trying to keep his ambitious staffers from free-lancing at the office, Jim Mullen gives them free run of the Wenham, Mass., advertising agency that bears his name after the firm has closed up for the day.

For the cost of a few office supplies, it's a policy that can curb potential office abuse. What's more, he figures, "the more respectfully we treat our employees, the more effective they will be with our clients."

Caveats of the free-lance policy include that employees do no work on their own for Mullen clients and competitors, and that they won't dip into pricey supplies without reimbursing the company.

"Every now and again a person may need extra money, owe someone a favor, or do *pro bono* work," Mullen observes. "That's perfectly understandable. Their work here must come first, but I'm not going to get on the bad side of my employees to save a couple bucks on supplies." ❑

BANKING

ASK AWAY

Conventional business wisdom has it that accountants are good sources of banking contacts. Then don't beat around the bush when interviewing potential accounting firms, figured Flo Gillen, CEO of Soft Inc., a computer-programming consulting firm in New York City.

When searching for an accountant in 1984, Gillen asked point-blank what kind of banking connections the firm could provide on top of its regular accounting services. While it was only a five-person operation at the time, Soft Inc. was growing rapidly and Gillen needed a credit line fast.

All but one of the accountants she interviewed were vague about what connections they had with banks, says Gillen. "That one was pretty blatant about it," she reports. He offered introductions to bankers he knew at Chase, Chemical, and Citicorp.

Gillen decided to go with his firm and soon had credit lines to choose from. "Sure, it was gutsy, but we needed the money, and it worked," says Gillen, who today employs 40 programmers. ❑

SALES

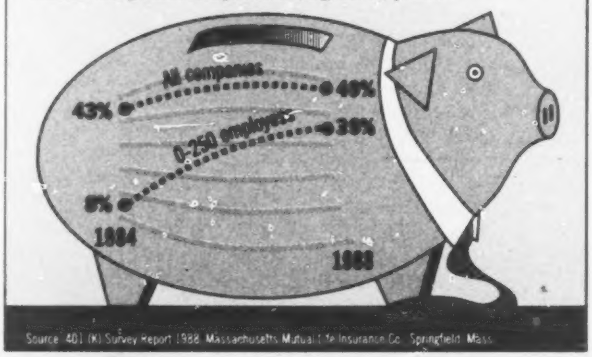
PROSPECTING PAYS

A problem with paying salespeople fixed-rate commissions is that, with enough steady customers, they could get lazy. Content to service the customers they know, they may be less eager to sniff out prospects. Bill Bozeman, CEO of Delta Audio-Visual Security Inc., a $3-million company in New Orleans that sells alarm systems to businesses and institutions, found a solution. His salespeople, who normally earn a 4% to 12% commission, can earn an extra 1% when they sell to first-time customers. On a $50,000 installation, that's another $500.

It may not sound like a lot, Bozeman concedes. But the opportunity to earn a bit more has influenced how Delta salespeople—especially the younger ones—spend their time. In the two years since the incentive was established, new-customer sales have risen from 25% of revenues to more than 35%. "Once we have them," Bozeman says, "we're in a strong position to convert them into regular customers." ❑

BENEFITS GROWING NUMBERS

401 (K) retirement plans are increasing, especially among smaller companies. Companies having 401 (K) plans:



Source: 401 (K) Survey Report 1988, Massachusetts Mutual Life Insurance Co., Springfield, Mass.

EQUITY

PLEDGE SPIRIT

Deciding who gets a piece of the action in any company is no easy task. When Jim Scott, CEO of Bulldog Industries Inc., a $9-million Atlanta moving business and plastics company, decided to give key executives a cut of his company four years ago, his selection process was not unlike the time-tested college fraternity system.

Scott makes it clear to executives when he recruits them that after the first year or so, a candidate may be voted into the equity pool by the other—now seven—stockholders. Those chosen must pay dearly for their 1% to 3% of stock. "We figure out how much money someone has got, and then set the price high enough so they really have to sacrifice if they're going to be part of the team," Scott explains.

If stockholders want to quit, they must cash in their chips, and book value price is not an option. "They get what they paid plus interest," says Scott. "The ones who stick with me until the end are the ones who will benefit." ❑

OPERATIONS

SALAD DAYS

During busy times of the year, it's great to be able to count on employees to give 110%. Harry Seifert, CEO of Winter Gardens Salads Co., cooked up a recipe for productivity that's hard to beat. He gives them a bonus *before* the busiest time of year hits.

Just before Memorial Day, when he has the largest demand for his New Oxford, Pa.–made coleslaw and potato salad, Seifert dishes out $50 to each of his 140 employees to whet their appetite for the work ahead. "When I give them the money, I tell them we are going for a record to give them something to shoot for," says Seifert.

"Because employees are trying to achieve a goal," he observes, "they don't feel like they are being taken advantage of during the intense week." Production for that week is 50% greater than bonus-free holidays.

Seifert reserves the bonus for special occasions. "It's like the 100-yard dash," he observes, "you can't expect employees to sprint year-round." ❑

HANDS ON

CUSTOMER RELATIONS

YOU OUGHTA BE IN PICTURES

Want to get a customer's attention? When prospective customers visit Eriez Magnetics, a $50-million manufacturer of magnetic laboratory and metal-detection equipment, the receptionist lines them up underneath a sign with the company trademark on it and snaps their pictures. "It's just our way of saying thank you," says Chet Giermak, president and chief executive officer. "We're complimented you'd come all the way to Erie, Pa., just to see us."

The photos have a more practical purpose as well. Giermak sends them to visitors complete with a cover letter reminding them of their reason for coming and the people they met. He slips the photo into a cardboard frame with the company's mission statement on the back. "It's a little memento," says Giermak. "Sometimes, after getting it, potential customers will let us have a second crack at them."

Giermak says that it takes only a minute to dictate the letter and that each complete package costs about $2, including the stamp. "Most people like to have their picture taken," he adds. "It makes them feel important." ❑

COMMUNICATIONS

SKIPPING AHEAD

The bigger your company grows, the harder it is to tell how employees feel about their jobs. "It's frustrating," says Lacy Edwards, president and chief executive of XA Systems Corp., a $13-million software maker in Los Gatos, Calif. "You just lose contact with people." To help his top executives and himself stay in touch with the rest of the company, Edwards inaugurated annual "skip-level" interviews.

Once a year, employees have a one-on-one conversation with their boss's boss. "How's your job going?" they are asked. "What can we do to make things better?"

"It gives you a legitimate opportunity to explore without going around somebody," says Edwards, who interviews everyone who reports to his six vice-presidents. He has also discovered people who would be perfect for jobs elsewhere in the company. "It's a chance to get to know them a little," Edwards observes. "In a different environment, the interviews could be used to air dirty laundry. But the people here have confidence that they are doing a good job." ❑

ON THE CHEAP

MULTIFUNCTION SOFTWARE *By Cary Lu*

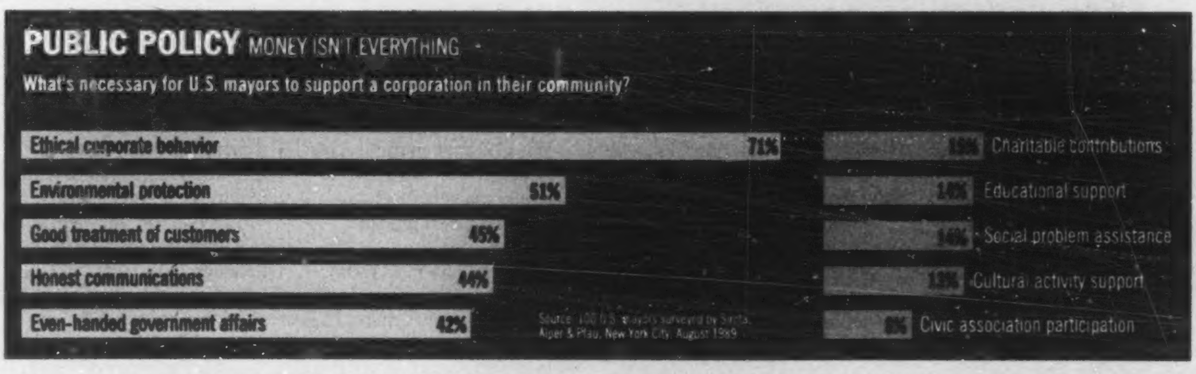
Popular computer software, such as WordPerfect, Lotus 1-2-3, and dBase, can easily run $200 to $500 per program. While these programs are deservedly popular, they have far more power than most people need or can use. You can save money by buying a low-cost multifunction program instead. For about $100 you can get a package that does four standard tasks: word processing, spreadsheets, simple databases, and communications with a modem. These programs may not be the best choice if you want to produce a complex business plan or fancy newsletter, but most have plenty of power to turn out letters, reports, invoices, and budgets—essentially all the nonspecialized computer tasks a businessperson does. A multifunction program is easier to learn than a collection of separate programs since it includes one user interface for all tasks. All programs described here include a spelling dictionary and support an optional mouse, unless otherwise noted.

The best multifunction programs can open multiple documents, so you can combine data from two files. The leader is Microsoft Works. It has the easiest-to-use interface and word processing to handle large documents, preview your document on screen before printing, and control fonts on laser printers.

A distant second choice is AlphaWorks (Alpha Software), which has comparable power except in word processing. Its interface is awkward, but it does use standard file formats—plain text, Lotus 1-2-3, dBase—so exchanging files with other people is easy.

Betterworking Eight-in-One (Spinnaker Software) cannot open text and spreadsheet files concurrently but will open two text files simultaneously. It lists for only $59.95 and has many features, such as screen preview for the word processor.

Other multifunction programs are less impressive, partly because they can open only one document at a time. PFS: First Choice (Software Publishing) is nevertheless well designed and easy to learn. DeskMate (Tandy Corp./Radio Shack) is by itself limited, but you can add programs to it. Several companies have programs that can be installed into DeskMate and follow its interface, including a spreadsheet from Lotus and a word processor from Symantec. If you add these programs, however, you'll end up spending several hundred dollars more. ❑



PUBLIC POLICY MONEY ISN'T EVERYTHING

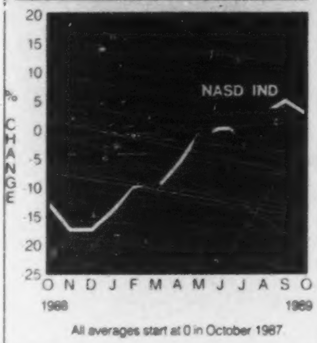
What's necessary for U.S. mayors to support a corporation in their community?

Source: 100 U.S. mayors surveyed by Sirota, Alper & Pfau, New York City, August 1989

Reported by Paul B. Brown, Joshua Hyatt, Teri Lammers, Martha E. Mangelsdorf, and Bruce G. Posner

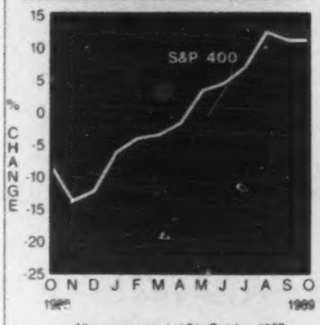
INVESTING IN GROWTH COMPANIES

INC. vs. CONSERVATIVE AVERAGES



All averages start at 0 in October 1987

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987

INITIAL PUBLIC OFFERINGS: SEPTEMBER 1989

			Offering			
O-T-C sym.	Company	Business/product	Size ($ mil.)	Price	First aftermarket bid	Underwriter
ALL[a]	**Allstate Municipal Income Trust III**	**Closed-end fund**	60.00	10.00	10	Dean Witter
OIF[a]	**American Opportunity Income Fund**	**Closed-end fund**	150.00	10.00	10	Piper Jaffray
APPB	**Applebee's International**	**Operates restaurant chain**	23.35	11.50	11¾	Piper Jaffray
OST[a]	**Austria Fund**	**Closed-end fund**	60.00	12.00	12⅜	Salomon Bros.
BVSI	**Brite Voice Systems**	**Provides audiotext svcs.**	13.75	12.50	14	Piper Jaffray
CWP[a]	**Cable & Wireless, PLC**	**Specialty retail chain**	280.56	26.72	26	Goldman Sachs
ECP[a]	**Central Newspapers**	**Operates newspaper chain**	83.00	21.00	22½	Goldman Sachs
CH[a]	**Chile Fund**	**Closed-end fund**	70.00	15.00	15	Salomon Bros.
CMK[a]	**Colonial Intermarket Trust 1**	**Closed-end fund**	120.00	12.00	12	Paine Webber
ERTS	**Electronic Arts**	**Mfrs. software**	16.61	8.00	8¼	Alex. Brown
FAXM	**Hotelecopy**	**Provides fax svcs.**	6.30	7.00	8	Josephthal
KPP[a]	**Kaneb Pipe Line Partners**	**Oil pipeline**	102.30	22.00	22	Goldman Sachs
MEGIU	**Megamation**	**Mfrs. robotic systs.**	3.00	5.00[b]	6	Thomas James
PDN[a]	**Putnam Diversified Premium Income Fund**	**Closed-end fund**	96.00	12.00	12	Merrill Lynch
PDI[a]	**Putnam Dividend Income Fund**	**Closed-end fund**	110.00	12.50	12½	Goldman Sachs
STGS	**Strings Ltd.**	**Specialty retail chain**	3.00	6.00	7	Starr Securities
SLTI	**Surgical Laser Technologies**	**Mfrs. medical lasers**	20.30	12.50	15½	Smith Barney
VCOR	**Vencor**	**Provides hospital catering svcs.**	13.60	8.50	8¼	Hambrecht Quist

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on NYSE; [b] units of 5 common + 4 warrants. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York, NY 10038.

IPOs IN THE AFTERMARKET

To October 15, 1989

STREET TALK Computerized fads come and go, and so, evidently, do the chances of one-day minicrashes such as October's Friday the 13th plunge. (The charts, left, include that 191-point drop in the DJI as well as the following Monday's 88-point recovery). From here on out, the public can only get more lessons on how fast it can lose money thanks to the nonbusiness-related games played by arbitraging speculators. One receding fad is portfolio insurance, an acknowledged contributor to '87's Fall Classic. In that brainless trading technique, computers automatically liquidate entire positions as soon as the overall market declines by a certain percent. Turns out the insured institutional investors didn't appreciate the idea of paying all that commission only to be stranded in cash when the market rallied. Now if a few more of those programs that can mercilessly change an orderly market into a 700-downtick slaughter in five minutes also get comeuppance, there may be hope of returning to the relative sanity of fundamental economics. Don't bet on it, though. In '87, anyone could have seen that equities were overvalued in the light of the country's huge trade deficit—but few did. Is the same kind of I-told-you-so atmosphere shaping up in gold, long considered a safe investment haven? What would happen if the USSR started dumping its vast gold holdings to raise some Western currency?

— Robert A. Mamis

MEDIA POWER

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THE MAGAZINE FOR
GROWING COMPANIES

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JAN. 1990
$3.00

THE ENTREPRENEUR OF THE YEAR

And the Winner Is . . .

SEE PAGE 42

Anatomy of a Start-up: Broadcast News

SEE PAGE 70

Plus: Managing People, Customer Service, Sales Management and more

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by
Lou Jones

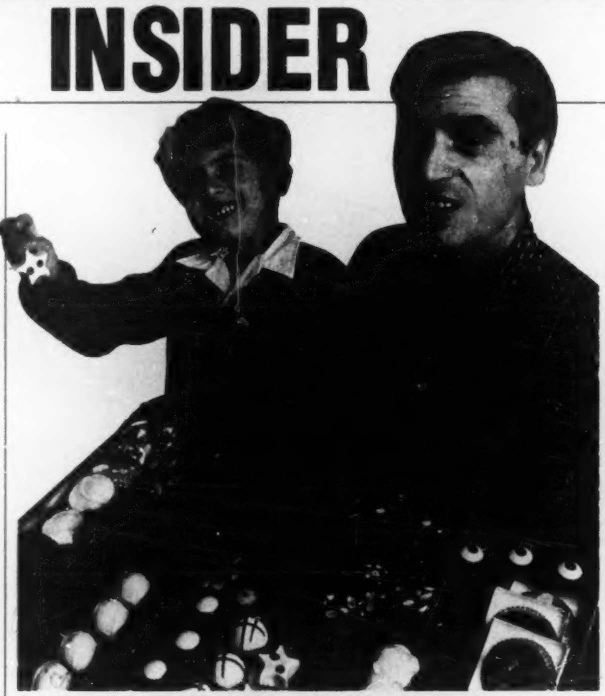
INSIDER

SOUR NOTES

When we last wrote about Santi Falcone ("Piano Man," January 1987), his Falcone Piano Co. was four years old and riding high on its reputation as one of the finest young manufacturers of handcrafted pianos. Today, the Haverhill, Mass., plant is putting out 10 to 12 pianos each month. But Santi Falcone—technician, designer, and builder—is no longer there. Instead, he's making and selling chocolates from his home, reflecting on how it was that he got pushed out of his own company.

What it comes down to, predictably, is cash flow. Falcone Piano was never profitable, and by early 1989 had run into serious money problems. One of the company's backers was amateur pianist Bud Greer, who had read the INC. article, bought a Falcone, and promptly invested $1.5 million for a 50% interest. When the company hit the wall last year, Greer offered to put up working capital in exchange for increased ownership. By early April he had purchased the remaining 50% of the company's stock, and Santi Falcone had resigned.

Falcone says he surrendered his stock believing no management changes would be made—and was immediately offered a demotion to marketing and product development. Says current president Jerry Keppler, "Santi was a great PR person, but running a company was not his forte." Greer's investment company tapped Lloyd Meyer, a former president of Steinway & Sons, to be Falcone's COO.


CLARK QUIN

Santi Falcone, with son Dante

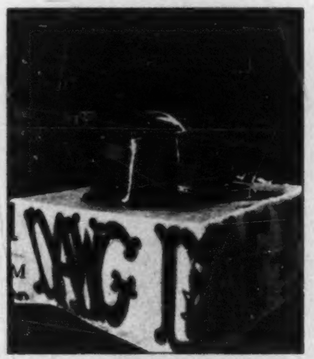
An investor stopped playing his song

"It's sad, more than anything else," says Falcone today. "I don't see how Greer thinks he can produce Falcone pianos without me. It doesn't make sense." For now, he and his wife and sister are making chocolates in their new cottage industry, Dante Confections. The business, he says, is profitable. Greer's company has gone on to acquire Sohmer Corp., an old-line manufacturer of high- and midpriced pianos under the Sohmer and Mason & Hamlin names. The plan is to do some of the manufacturing in the Haverhill plant, next to the Falcones. Meanwhile, Santi Falcone says that by February, he'll make a final decision on whether to start a new piano company. *—Leslie Brokaw*

OUT OF THE DOGHOUSE

If you happened to catch "Monday Night Football" on October 23, you may have spotted a huge orange football helmet sitting just behind the visitors' bench. That was actually the official NFL doghouse. And just how did the NFL wind up with a doghouse? There hangs a tale.

The Helmut Hut, as it's known, is the creation of Domation Inc., an INC. 500 company in Columbus, Ga. Founders Rick Marshall and Randy Marshall (who aren't related) never intended to be in the doghouse business. Domation makes polyurethane roofs for commercial and industrial buildings, as well as some domes. To introduce people to the virtues of domed structures, the Marshalls built a small model and displayed it at a local exposition in 1985. It generated scant interest, except among children. Several people suggested Domation get into playhouses and doghouses. "We kind of laughed," says Randy.



JACK VAN ANTWERP

The Browns' Helmut Hut

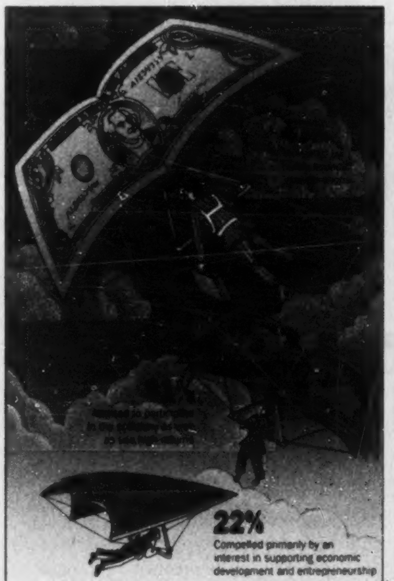
Monday night special

By 1988, however, Domation was test-marketing prototypes of dog domes. Someone noted that they looked like giant football helmets. Why not paint one in the colors of the University of Georgia Bulldogs? The Marshalls did, and it was selected as a prize for an alumni event. Then, last June, Randy happened to show a photo of the helmet doghouse to a man from Cleveland, who suggested he take the idea to the Cleveland Browns. After all, how many teams have a "dog-pound cheering section" where fans sit and bark?

Within a few weeks Domation had a deal with the Browns, a Cleveland radio station, and a dog-food company to sponsor the Cleveland Browns Honorary Mascot program. Then the NFL decided to feature the Helmut Hut in a special pet catalog it's bringing out. Domation now expects to sell about 8,000 Helmut Huts in 1990 (at $199 each). As for those energy-efficient full-size modular prefabricated domes, the Marshalls are hoping to have them in production by 1998. *—Bruce G. Posner*

ADVENTURE CAPITAL

Why do people sink money into start-ups? Here's what 473 investors said in a recent survey, conducted by University of Tennessee College of Business associate director Pat Postma.


22%
Compelled primarily by an interest in supporting economic development and entrepreneurship
SCOTT MACNEIL

HONEST BUSINESS

The four stories on the following pages capture some of the dilemmas of starting a business, involving tough questions of right and wrong. What would you do?

BY JOHN CASE

The discussion here at INC. that morning got a little heated—which is why we're inviting you to test your ethical judgments against those of other businesspeople all around the country.

The connection? Let me explain. Several months ago, eight of this magazine's editors gathered around the big oak conference table for a critical assessment of the previous month's issue. When the discussion turned to an article called "Supply-Side Financing" (February 1989)—well, that's when a few voices were raised.

"It's just wrong," said one editor. "Bad business and lousy ethics. How can we appear to be condoning it?"

"It" was the story of Dennis Chang, president and chief executive of Jasmine Technologies Inc., in San Francisco. Strapped for cash in his company's early days, Chang had paid his suppliers as little as he possibly could. But what really galled the protesting editor was Chang's pledge of personal guarantees well beyond his net worth. "The first guarantee devalues all subsequent guarantees," wrote author Ellyn E. Spragins, "but your suppliers don't know that."

The debate raged, the idealists among the editors charging Chang with unethical behavior, and the realists accusing the idealists of terminal naïveté. ("If nobody stretched their creditors, nobody would ever get a business started.") By May a chorus of letter writers had joined in. "What happened to the days when an individual's word meant something?" asked one. "You've provided an outline for larceny," charged another. Author Spragins was unapologetic: "Supplier finance is no more inherently unethical than any other business practice," she retorted. Chang himself argued in a later letter that he had built personal relationships with his vendors, getting credit "openly and honestly." Of course, there were risks—"but isn't that the nature of being in business?"

Somehow I doubt we'll ever resolve this dispute to everyone's satisfaction. But it got us thinking: despite all the hoopla over business ethics, no one has paid much attention to the choices entrepreneurs must make every day. If you leave one company to start another, is it OK to take a co-worker with you? What about luring away a customer? When you're borrowing money, how much do you have to tell your lender? And—remembering Dennis Chang—what are your obligations to your suppliers?

As they say on late-night TV, wait! Don't answer yet.

Instead, take this little test. Read the vignettes on the following pages about a fictitious company *you* are starting. Figure out what you'd do in the situation outlined, and check the appropriate box.

Then turn the page. Not for the "right" answers, because we don't think there are any. Instead, you'll see who agrees with you.

A few months ago we sent this same questionnaire to a sampling of INC. readers. Several hundred responded, not only with checkmarks but with strong opinions and stories of similar situations they had lived through. Compare your own responses with theirs—and if you don't think theirs are on the money, let us know (see box).

Ready? Here's the background:

THE STORY

You've been involved with computers all your working life. Five years ago Rob Firman asked you to join his new data-processing company; today you're a sales manager in Firman's 20-person shop. But you really want to start your own data-processing business, and for the past few months you've spent your evenings doing spreadsheets, developing customer lists, and otherwise mapping out the new venture. Firman knows nothing about your plans. You'll tell him as soon as you're ready to give notice.

In the meantime, you continue to put in a hard day's work. But now and then a difficult situation comes up. . . .

LET US KNOW WHAT YOU THINK!

Have something to say—about any of these vignettes, about your own experiences, or about business ethics in general? Let us hear from you, and we'll try to continue the debate. Write a letter to INC. ETHICS, 38 Commercial Wharf, Boston MA 02110. Or call us on our letters phone line and talk into our answering machine. The number is (800) 444-1756.

How the survey was conducted. **A few months ago we sent the INC. Business Ethics survey to a random sample of 5,000 subscribers across the country. A total of 388 readers replied, for a response rate of 7.8%. The first 337 responses were tabulated by computer to give the answer percentages reported on pages 68 and 69. Except for minor editing, the situations described in this article are as they appeared in the survey.**

Many thanks to those who took the time to fill out the questionnaire. One professor of business communications even asked her students to take the survey; though the results arrived too late to be included in this report, we'll try to report them in a future issue.

PHOTOGRAPHS: WEBB CHAPPELL

THE KEY EMPLOYEE

It's 5:30, and there's a knock on your office door. Quickly you rehearse your pitch one last time, even as you're calling for Lowrey to come in. The programmer enters and sits down, grinning.

"Did you hear?" he asks. "Seems the boss wants me to put on a tie and begin acting like an executive."

You congratulate him, but the doubt once more flickers across your mind. The start-up you're planning needs Lowrey. He's the quickest technical guy you've ever met. He has an incredible knack for making clients feel at ease. And more than once he's told you he'd like to be involved in a new venture someday.

If it weren't for Firman, you'd offer him a job right now.

Face it, you think, Firman put you where you are today. He not only hired you and trained you, he gave you more responsibility than you were ready for, confident that you'd grow into it. And you have—so quickly that now you're chafing under his sometimes-arrogant authority. When you leave, Firman may feel betrayed. But you steel yourself against the remorse. That's business. Firman is a big boy.

But what about Lowrey? Just last week Firman told you his hopes for the young man. He talked of broadening Lowrey's responsibilities, of eventually bringing him into management. Just the guy I need, he said, to help me take this company past $2 million.

You look again at Lowrey, sitting in your office, smiling to himself. You know he's essential to Firman's plans. But you also know where his long-term hopes lie, and that he'll take a job with your start-up if you offer one. You even think that Firman, if he weren't personally involved, would encourage you. "A man has to look out for himself," he likes to say.

WHAT DO YOU DO?

________ OFFER LOWREY A JOB.
He's the one who'll be making the choice, after all. Firman can take care of himself.

________ QUIT THINKING ABOUT THE START-UP
until you leave your job. You shouldn't be doing it on Firman's payroll.

________ BITE YOUR TONGUE.
It's OK to keep planning the start-up, but don't mention it to Lowrey until you've left.

THE CUSTOMER

Lisa Meggett sips her coffee, leaving her words hanging. You bite off some bread, trying to chew slowly and think fast.

Meggett is managing partner of a consulting firm, one of Firman's customers, and you've been handling the account. Today you've asked her to lunch, ostensibly to discuss her longer-term data-processing needs. In fact, you want a chance to talk up your new company. You figure you can offer her the same services she's getting from Firman, only for 30% less. And now she has left an opening you could drive a minicomputer through.

"I'm afraid I have bad news," she had said. "I hope you won't take it personally, because I've always enjoyed working with you. But computers are so cheap now, we're planning on bringing our data processing in-house. We should save 20% over what we're paying you. Unless you can match that I'll have to close our account."

Give me a break, you think—not only can I beat it, I can show her exactly where her figures are wrong. She hasn't counted the cost of hiring, training, and keeping busy the new people she'll have to bring in. She hasn't counted overhead. The sales pitch is a no-brainer, and Meggett's firm could be a big customer for your planned new company. But that's not what's troubling you.

You were just leaving for lunch today when Firman came in. He was edgy. "Listen," he told you, "don't take any bull from these people. I play golf with one of the partners over there, and he's been going on about buying this new computer. I bet you hear all about their big in-house plans and how much money they'll save.

"My attitude is, let 'em go. They'll find out it's not so easy, and they'll come crawling back to us. This isn't tiddledywinks we're playing here. If that's their plan, say so long and wish them well."

Now, back at the restaurant, Meggett looks up, awaiting your response. You can take Firman's approach, even though (you can't help thinking) it amounts to shafting the customer. Or you can make your own pitch, offering Meggett the best deal she'll get and maybe landing your first account.

WHAT DO YOU DO?

________ DO AS FIRMAN SAYS.
You're on his payroll, after all.

________ MAKE YOUR PITCH.
Serving the customer better is what business is all about.

________ HAVE AN OPEN-ENDED DISCUSSION.
Make your pitch after you've left your job.

AND NOW . . .
You've made the big move, leaving Firman and starting up a brand-new business. But you find that the dilemmas are still with you. . . .

THE BANKER

Driving back to the office—*your* office, you think proudly, with your five-month-old company finally moved in—you review the events of the past few hours.

What a meeting! The sales pitch you had so carefully prepared was scarcely necessary—it was as if the customer had long since decided to sign the contract. The amazing part was, he also wanted you to take on all his affiliated offices. Now, as you drive, the wheels are spinning in your mind. You'll need several new programmers and a couple of support people. You'll need new machines and more space.

The tricky part, you realize, will be handling Norton at the bank.

So far, Norton has been everything an entrepreneur could ask for in a banker. Conservative, sure—he's a banker, isn't he?—but nevertheless helpful. He arranged a modest line of credit secured by some of your hardware, and you are already into him for $25,000 or so. What's keeping him happy, of course, is your hefty cash balance and your prompt payment record. This move will change all that. You'll have to drain your cash, hurrying up your receivables and stretching your payables from now until summer if possible. You'll have to utilize Norton's line to the fullest.

Braking at a light, you realize your excitement is tinged with frustration. If you're straight with Norton—if you tell him everything you're planning—he'll tell you you can't handle that much growth, that you're crazy to be taking on so much new work so soon. He'll tell you that your debt will be too high and your cash too low. He might even say he's going to have to cut back your credit line—exactly what you can't afford.

On the other hand, you think: it's not his company. His loan is secured by the equipment. And there's no reason you have to tell him everything you're doing; you won't even be audited for another seven months, and by then you should be making money. You are, after all, in business to grow—and you've got one big opportunity to do just that.

WHAT DO YOU DO?

________ COME CLEAN TO NORTON.
Try to convince him you can handle the growth. If you can't, don't accept the new job.

________ KEEP QUIET.
Tell Norton as little as possible. Take the new job, manage the cash carefully.

________ COMPROMISE.
Tell Norton little but admit to yourself he has a point. Take the new job but look hard for more investment capital.

THE SUPPLIER

That's him now, you think, as you look out your office window and see Dick Wilson getting out of his car. You know Wilson a little; you've even played golf with him a couple of times. So it was natural to call him. In any event, he represents the best office-furnishings company in town, and you suddenly have several new offices to outfit. He enters your office, sticking out a meaty hand.

"Thanks for coming out, Dick," you say. "Here—let's take a little stroll and you can see the space we're talking about."

Walking through the vacant rooms, you know you've got him where you want him. You did business with Wilson's company at the beginning, paying them promptly with your start-up capital. When they run their credit check they'll learn you have plenty of cash left and a good payment record. No reason for them not to cooperate on this one—ship the furniture and equipment out, bill you 30 days, not even pick up the phone until 45 or 60 days.

Granted, they don't know what you're planning. They don't know that the rooms Wilson's measuring will soon be occupied by several expensive programmers and several expensive machines. Or that the cash drain on your company will be severe. In the end, you calculate, it'll be roughly six months before Wilson's company gets all its money. You'll send them just enough to show your good faith—and to keep the moving trucks away from the door.

Now, talking with Wilson back in your office, you consider telling him the whole situation. Would it scotch the deal? Maybe, and then you'd be left with a bunch of unfurnished offices and the word out that you were short of cash. On the other hand, who's hurt if you say nothing? Wilson's company will get its money eventually, and you'll be ready for the new business you're taking on. Even in the worst situation, all they need to do is come get their furniture.

WHAT DO YOU DO?

________ TELL WILSON
all your plans. If he backs out, find another supplier.

________ KEEP MUM.
Credit is his company's problem, not yours.

________ POSTPONE.
Don't contract for more furnishings until you can afford them, even if that means postponing the planned expansion.

THE KEY EMPLOYEE

What the Respondents Said

12%	OFFER LOWREY A JOB
6%	QUIT THINKING ABOUT THE START-UP
82%	BITE YOUR TONGUE

IN THEIR OWN WORDS . . .

- "Make the offer! Employers must compete for employees as well as for customers."
- "Making a low-key offer to Lowrey isn't 'stealing' him. But let Firman know your plans."
- "I offered the job while I was still employed. It was a mistake. The person didn't go in with me, and it could have ended up in a costly lawsuit."
- "Not offering the job is unfair to Lowrey. But be honest with Firman. He was once involved in a start-up—remind him of that."
- "Until your plans are definite you're risking your career—and Lowrey's. It's not a done deal until you're out."
- "I encounter this as 'Firman.' I encourage workers with entrepreneurial leanings to discuss things with me. Maybe we can help them get started so both of us benefit."
- "Quit thinking about it! Give your best to one thing at a time."
- "I've been on Firman's side of the issue and didn't like what my colleague did."
- "Congratulate Lowrey, but hint that someday you want to have your own company. Don't say when."

IN REAL LIFE

On the spot: Andy Friesch, founder, Heartland Adhesives & Coatings Inc., Germantown, Wis.

Friesch was a top sales producer for a $100-million-plus company in the industrial adhesives industry. But he felt that his opportunities were limited there, the company was "underutilizing what I was best at," and anyway he had dreams of going out on his own. Two of his co-workers, one in marketing and one in the technical end, seemed like prime candidates to help him get started.

What he decided: In Friesch's mind, there was no question. "I asked them to join me. Some people think I'm a rebel on this, but so long as you don't violate a noncompete agreement you have to look out for yourself first. I said, look, I'm not twisting your arm; if you want to stay here I respect that. But I have a vision and I want to follow it.

"I don't want to give the impression I'm not a loyal person. But when it comes to corporate America, individuals have to do what's in their own best interest. Corporations look out for themselves first and employees second."

The upshot: No one came. "They were willing to talk about going off with me, but when it came right down to it they didn't want to make the sacrifice." Were there hard feelings when he left? "Not from my peers. My superiors—I don't think they like what I've done, or what it says about their company."

THE CUSTOMER

What the Respondents Said

12%	DO AS FIRMAN SAYS
22%	MAKE YOUR OWN PITCH
66%	HAVE AN OPEN-ENDED DISCUSSION

IN THEIR OWN WORDS . . .

- "Do as Firman says. But set up an unofficial meeting and make your pitch."
- "Tell Meggett here's what Firman says—but then tell her you're starting up and can save her both headaches and money."
- "Make your pitch. Firman has lost the concept of customer service."
- "If Firman won't serve the customer, I certainly will."
- "When I realized my boss really didn't care, I went back to the customer and made my pitch without the boss's knowledge. At that point it was none of his business."
- "Don't try it. One of our salesmen left and took some of our accounts. We sued him and won."
- "If you're still taking Firman's money you have to do your best for him."
- "While on the payroll you must represent the firm or tell the boss why not."
- "Regardless of Firman's directions, he'll really be upset if *you* lose the account."
- "In a similar situation, I quit almost immediately and landed the account."

IN REAL LIFE

On the spot: John G. McCurdy, founder of Sunny States Seafood, Oxford, Miss.

Working for another Mississippi seafood distributor, McCurdy was furious with his boss. On paper they were partners, though McCurdy's 8% interest paled beside the other man's 92%. But it seemed to McCurdy that he was doing all the work while the other fellow took home the money—and ordered him around besides. So McCurdy decided to go out on his own. Hearing of his decision, several customers asked to go with him; some even called him up after he had established his own company, asking to do business.

What he decided: "I wanted to do anything I could to close that company and put him on welfare. But taking accounts just wasn't the right thing to do. I'm only 24 years old, I've got another 40 years left in business, and if I do somebody like that, somebody's going to do me like that. I don't live by the Golden Rule all the time, but that time I did."

The upshot: McCurdy is succeeding, and has recently opened up a franchised store in Tupelo. His former employer: pfffft. "He got into debt and had to sell out to a big catfish company."

THE BANKER

What the Respondents Said

44%	COME CLEAN TO NORTON
30%	KEEP QUIET, TELL NORTON LITTLE
26%	COMPROMISE, SAY LITTLE BUT LOOK FOR INVESTMENT

IN THEIR OWN WORDS . . .

- "Banks don't like surprises. Norton's an entrepreneur's dream—don't blow it!"
- "Convince Norton you can handle it. If he disagrees, take it to another bank for evaluation."
- "I'd keep quiet. Growth is my business, banking my banker's."
- "Bankers haven't the foggiest idea how to run a company. Tell them only what they require."
- "Without my bank I'm out of business. So I don't do anything to test the relationship."
- "I'd ask Norton to come to lunch and show him this wonderful opportunity, but tell him when I run the numbers they look thin. Get him excited, give him the facts, ask for his assistance."
- "Could you get the job and phase in the affiliates on a dated schedule?"
- "Work with the new client to get some up-front money."
- "I spent 10 years as a banker on Wall Street. No surprises to your banker!"
- "Bankers are never very knowledgeable or competent."

IN REAL LIFE

On the spot: W. Mark Baty Jr., Accredited Business Services, Cleveland

Some years ago, Baty was running his own metals recycling business and was approached by a big customer. To land the account he needed a load lugger—a specialized truck with a hydraulic lift on the back—costing some $60,000. Approaching the bank for a loan, he knew his overall financial situation was a little shaky: he was in debt to his parents and in-laws, stretched out on his credit cards, and finagling his receivables and payables. "I'd try to collect my receivables in 10 days if I could, and I'd put off my payables for 30 or 60 days, whatever the traffic would bear." But he also knew he could get the account if he had the equipment.

What he decided: "You don't lie to a bank—but I certainly don't believe in offering them more information than they ask for. You don't tell them the loans your parents made to you, the money you've used from credit cards for your business. Playing with your accounts receivable and payable, you definitely don't tell your banker that. You're doing a little bit of creative financing, you're using everything you can to keep your business going."

The upshot: He got the loan, paid it off, and the banker was never the wiser. "You're not lying to anybody, and you're not falsifying records. It's something that's done every day in business."

THE SUPPLIER

What the Respondents Said

65%	TELL WILSON
11%	KEEP MUM
24%	POSTPONE

IN THEIR OWN WORDS . . .

- "Tell him. Then set a payment schedule agreeable to all."
- "Tell him. You can always find eager vendors willing to grant terms. It isn't worth your ill health fending off collectors and repo men."
- "Keep quiet. Once you start to do something, it's ridiculous to vacillate."
- "We kept quiet. We kept one strong credit reference and finessed a number of purchases off that reference."
- "I got several bids in a similar situation, making it clear that a delayed payment schedule was an important decision-making criterion."
- "Postpone. Too many start-ups overextend their expenses."
- "Buy used furniture. If you have to have all the best trappings at this point, you probably should have stayed where you were."
- "I stretched out payments once, and I regret it. Be up-front and negotiate terms, then stay within them."
- "I bought door panels and bridged boxes to make temporary desks."
- "We got the equipment and later went into Chapter 7. Because I guaranteed the payment, the equipment company got everything they were owed."

IN REAL LIFE

On the spot: Kurt Listug, cofounder of Taylor Guitars, Santee, Calif.

Listug was only 21 when he and his partner founded their guitar manufacturing company; the partner was all of 19. "We had no idea what we were getting ourselves into." But they plowed ahead, ordering supplies and materials even though they weren't quite sure how they would pay the vendors. Among the orders: $1,200 worth of rosewood, purchased from C.F. Martin & Co., a venerable and considerably larger guitar manufacturer.

The $1,200 didn't get paid. And didn't get paid. "I remember being so broke," recalls Listug. "We only owed them $1,200—how could we not have it? But we didn't, for a long time." Martin finally gave up, sending the bill to a collection agency. But Listug's company still couldn't pay it, and the creditor too threw in the towel.

What he decided: "Years later, after they had written it off, we started to catch up. We made a list of our bills and added that one to it. Finally we had the money and we paid them—out of the blue. They were shocked by the whole thing."

The upshot: Listug's company now has 35 employees—and a deal with a supplier who gets his wood in India. "We're not buying from Martin now. But we've bought rosewood pretty regularly from them over the years." ❑

HANDS ON

A Manager's Notebook

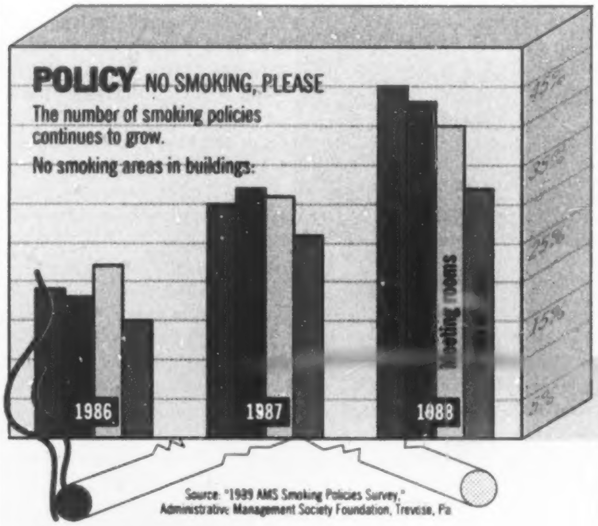
PUBLIC RELATIONS

YOU GET WHAT YOU PAY FOR

You have some great information that you want to give your customers or prospects. The experts are lined up, and you've gotten people to donate their time or induced corporate sponsors to pick up the tab so you won't have to charge anything for the seminar you've planned. What's your next step?

Figure out how much you are going to charge. "Unless you charge people something, they're not going to value the information," says Robert F. Donovan, director of marketing for Equimark Corp., in Pittsburgh. Two of its subsidiary banks had put together a string of seminars on marketing and finance featuring professors from The Wharton School and the University of Pittsburgh and, to attract new banking customers, had planned to offer them for free. "People were reluctant to come to the seminars if they were free. Unless it hurt a little bit financially, they didn't think they had value."

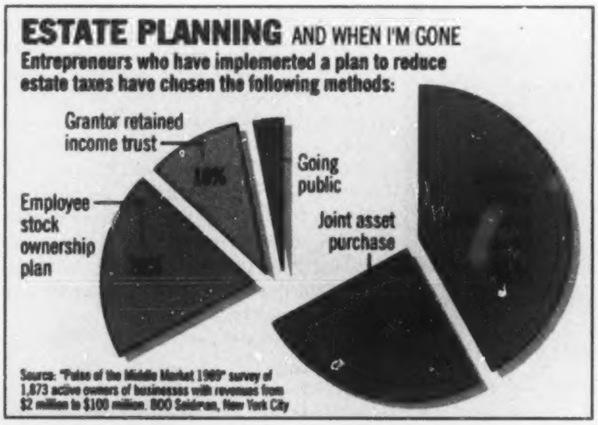
After testing various prices, Equimark settled on $25 per session. Attendance exceeded expectations. ❏


POLICY NO SMOKING, PLEASE

The number of smoking policies continues to grow.

No smoking areas in buildings:

Source: "1989 AMS Smoking Policies Survey," Administrative Management Society Foundation, Trevose, Pa


ESTATE PLANNING AND WHEN I'M GONE

Entrepreneurs who have implemented a plan to reduce estate taxes have chosen the following methods:

Source: "Pulse of the Middle Market 1989" survey of 1,873 active owners of businesses with revenues from $2 million to $100 million. BDO Seidman, New York City

COMMUNICATIONS

MAKING A LIST

As companies grow, it isn't easy to stay up on what everyone's doing. Opportunities for teamwork often get lost. Norman Howe, CEO of Norman Howe & Associates, a marketing and consulting business in Pasadena, Calif., has developed a system to combat these kinds of inefficiencies. It's built around a weekly "to do" list.

Every Monday morning, Howe's 26 employees make lists of their tasks or projects. The lists are then shared with supervisors and read at a staff lunch.

A big advantage to operating this way, Howe says, is the team atmosphere it creates. "People have a more complete view of what's happening." Frequently, he notes, individuals suggest new ways to approach problems; if they have time, they even offer to help colleagues in a pinch. The staff lunches usually last about an hour, Howe says. "There's a real value in articulating what you're working on to a group." ❏

MANAGING PEOPLE

SUNNY SIDE UP

When managers of growing companies begin to focus on their own corners of the universe, camaraderie gets lost and communication mix-ups mount. Such was the case at Phoenix Textile Corp., a 56-employee institutional linens distributor based in St. Louis.

To stave off future miscommunications, CEO Palmer Reynolds began hosting monthly breakfasts with the president. She invites five different employees—one from each department—each month to join her at a local restaurant. "I learned how well we thought we were communicating and how much we weren't," Reynolds says.

"People get to know me. I get to know them. They get to know each other and, most important, what each other does," she says. On a recent morning outing, the sales department learned that the production department also had quotas to meet. As a result, the two groups ended a longstanding tug-of-war. Such direct communications have helped contribute to Phoenix's growth from $1.43 million in 1983 to $24 million in 1989. ❏

RESOURCE

GOOD CHEMISTRY

To comply with increasingly stringent EPA and OSHA standards, you may feel like you need a doctorate in chemistry to stay in business. To the rescue comes a cadre of experts from the American Chemical Society with *Chemical Safety Manual for Small Businesses.*

The booklet offers tips on employee training, a glossary of common chemicals and dangerous combinations, safety facility designs, and emergency procedures. It addresses proper handling, and good-housekeeping practices to prevent fires and explosions. The 70-page booklet is a bargain at $5 for one to four copies and $2 for five or more. Send a check to the American Chemical Society, Box 57136, West End Station, Washington DC 20037, or call (800) ACS-5558. For more information on proper hazardous-waste disposal, contact your state environmental protection office or the EPA Resource Conservation Recovery Act Superfund Hotline at (800) 424-9346. ❏

CHARTS: CYNTHIA DAVIS

MARKETING

SHARE AND SHARE ALIKE

Chances are, outside your selling territory, companies like yours are just as hungry for marketplace information as you are. They aren't your competition, so why not share secrets? That's what Sheila West, CEO of Archery Center International Inc. (ACI) in Monroe, Mich., figured in 1981 when she bought an archery retail shop full of bows and arrows she knew nothing about. "I didn't know who else to call and I needed to know what to order for the upcoming season," admits West, who now runs $3.4-million ACI, an archery equipment distributorship spun off from the retail shop.

Early on, store owners were suspicious of her motives, and hang-ups were common. So she offered them the phone number of a manufacturer who would vouch for her. She conducted short interviews with about 20 shop owners and got a handle on which products were hot sellers, the best quality, and good prospects for the upcoming season. "People who warmed up to the idea found they wanted to know about these things just as much as I did," says West. ❑

CUSTOMER RELATIONS

IN THE CARDS

In a sea of competition, is it possible to remind former and prospective clients that you exist without constantly bugging them? Alan Gaynor, who runs a Manhattan architecture and interior design firm, thinks you can by using cards to keep your work in their minds.

Every time Alan Gaynor & Co. gets a new job or completes one, Gaynor sends out a wedding invitation–size card to 1,200 names on his mailing list. The card names the client and explains what the 21-person firm has been hired to do for it.

"The cards remind people we're still alive," says Gaynor. "What's more, a builder might learn that we also do interior work, or somebody who has used us on interiors can see we're capable of designing buildings.

"We try to do a mailing every two weeks," Gaynor continues. "It's like advertising—you have to keep sending out the message if you want it to sink in." With postage and printing, mailings cost around $500, but Gaynor says it's money well spent. "If we get one job every two years as a result, the mailings pay for themselves." ❑

CUSTOMER SERVICE

LUNCHING IN STYLE

Having trouble contacting customers at the CEO level? Bill Czapar, CEO of Anaheim Custom Extruders Inc., in Anaheim, Calif., waved goodbye to that problem with his California Limo Lunch, a limousine-chauffeured luncheon invitation.

Once a CEO experiences the thrill of being whisked away by limousine to a restaurant, future invitations are rarely refused, giving Czapar regular opportunities to conduct business conversations with no interruptions.

"I'm trying to pave the way so that if there is a problem with our product, we don't get thrown out for an occasional mistake," explains Czapar. He extends the lunch invitations about four times a year to the 20 customers responsible for most of his $3-million annual sales of custom-extruded plastics. ❑

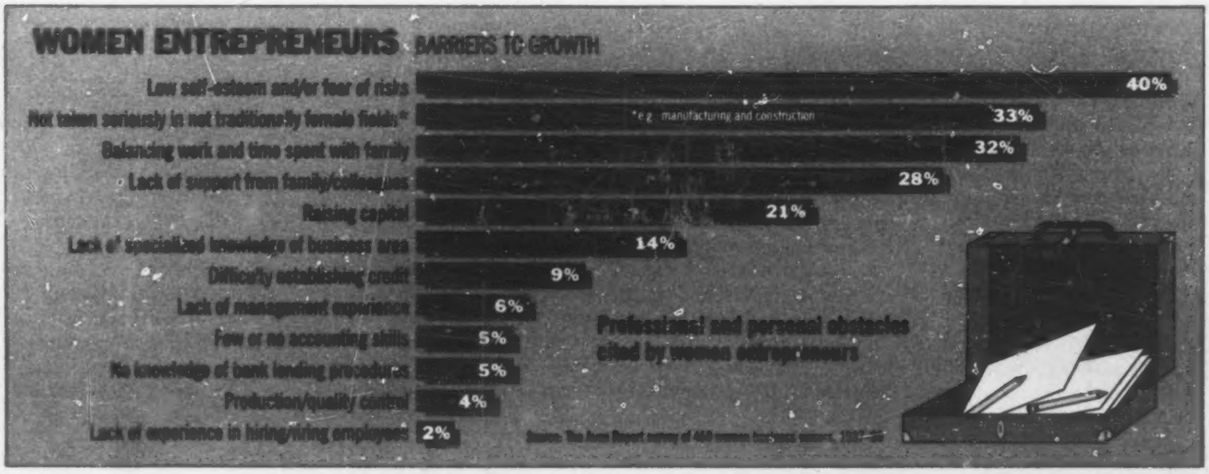
OPERATIONS

STAMP OF APPROVAL

In the press of a busy day, it's difficult for most CEOs to keep in close touch with employees. Harry Seifert, CEO of Winter Gardens Salad Co., a 140-employee salad-manufacturing company in New Oxford, Pa., developed a simple, if slightly impersonal feedback system. He rubber-stamps "Read by Harry" on reports and routes them back to key employees for safekeeping. Time permitting, he augments the stamped acknowledgement with comments in the margins.

"For an employee, the worst thing is to be ignored," says Seifert. "Imagine if you spent all this time working on a report and it got stuffed [illegible] a drawer. It would really get [illegible]. That's when quality sli[illegible]nce he began using the stamp a year ago, Seifert says the quality of the reports he gets has improved. ❑

HANDS ON (continued)

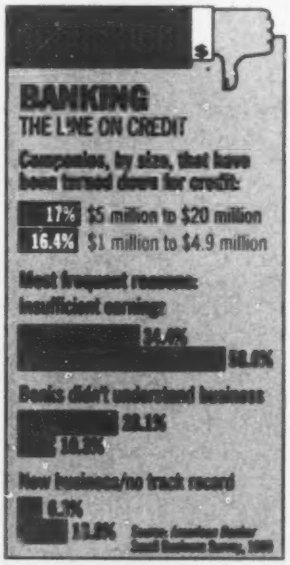


Source: The Avon Report survey of 460 women business owners, 1987–88

INTERNATIONAL

COOKING UP SALES

When you're selling to a foreign prospect, the pomp and circumstance of formal meetings may get in the way of closing a deal.



Source: American Banker Small Business Survey, 1989

After 20 years of selling internationally, Wayne Cooper decided to balance the formality with an evening of casual entertaining.

It began when Cooper, CEO of 13-year-old Arcon Manufacturing Inc., in Charlotte, N.C., invited a delegation visiting from China over to his ranch to cook its favorite dishes. "They had been on the road for a month and missed their native cuisine," explains Cooper, who then sold them a grain-storage system the next day after a year and a half of meetings.

To keep things simple, the five- to six-person delegations cook just for themselves, Cooper, and his wife, Judy. Business is not discussed. "In meetings prior to the dinner, they feel like you are trying to put one over on them and are suspicious; afterward they want my advice," claims Cooper, who now turns his kitchen over to visiting chefs once a month. ❑

COMMUNITY RELATIONS

EYES ON THE PRIZE

How do you help solve America's education crisis and get a payback for your company? Jack and Shelly Finnerty, owners of The Pizza Store & More, in Laguna Hills, Calif., do it by rewarding students at a local elementary school.

The Finnertys supply prize certificates for school-sponsored functions, such as paper drives and book-report contests. The prizes happen to be the house specialty, pizza. The pizza may be free, but when students cash in their certificates, soft-drink and other sales also ring up at the restaurant.

"It's inexpensive compared with the payback of motivating students and generating goodwill for our business in the community," says Jack, who figures he's developing a devoted clientele in the process. "As these kids grow up, they'll like my pizza and want to spend their allowances here." ❑

ON THE CHEAP

MIGHTY MODEMS

By Cary Lu

After a printer, perhaps the most common accessory for a personal computer is a modem. Modems can connect your computer through telephone lines to services ranging from electronic mail to stock reports and airline schedules. For general business use, a 2,400-bits-per-second (BPS) modem is your best bet. Slower 1,200-BPS modems aren't much cheaper, and the industry hasn't fully standardized faster modems.

Hayes Microcomputer Products Inc. and other manufacturers usually sell 2,400-BPS modems for $400 to $600. But you can buy a Hayes-compatible 2,400-BPS modem for less than a third of the price. Would a less expensive modem work for you? Probably. Here are a few shopping tips to keep in mind:

■ Some modems handle phone-line noise better than others. More expensive modems don't necessarily perform better. To play it safe, if you think you have noisy phone lines, buy a modem with a 30-day money-back guarantee to see if it can handle the noise.

■ Error-correction protocols can reduce or eliminate some problems caused by phone-line noise and other glitches, but both sending and receiving modems have to agree on how to correct errors. Some error-correction protocols are managed by software that can control any modem. But the most effective error-correction method in wide use—called MNP level 5—must be built into a modem. It adds $50 to $100 to the modem's price, but it includes data compression, which enables a 2,400-BPS modem to transmit information at up to 4,800 BPS. Aside from cost, the only problem with MNP is that many modems don't have it. An MNP modem will work when connected to a plain modem, but you can't use the MNP features.

■ In spite of the higher cost (about $10 to $25 more), extra cable, and need for a bit more desk space, I suggest buying an external rather than an internal modem because it will work with your present computer as well as any you might buy later.

■ For general-business applications, I recommend the MNP modems from Practical Peripherals Inc. (Westlake Village, Calif.), which typically sell for $200 to $250. For infrequent use, a plain 2,400-BPS modem that sells for $100 to $150 should work fine. I recommend Boston's Zoom Telephonics Inc., which offers a money-back guarantee. Look for Zoom's latest design, which has an "R" suffix in the model number. ❑

SALES

SAIL AWAY

A vacation giveaway is a classic sales incentive, but sales-quota deadlines can encourage last-minute sales and produce more losers than winners. Frank Garofalo, founder of Numismatic Investments of New England, in Salem, N.H., has found a better way. At Numismatic, contestants take as long as they like to generate $50,000 of rare-coin sales, at which time an $800 travel credit is awarded.

Winners appreciate the flexibility of choosing when, where, and with whom they can spend their vacation. And the costs work out about the same as the luxury all-expenses-paid vacation normally awarded.

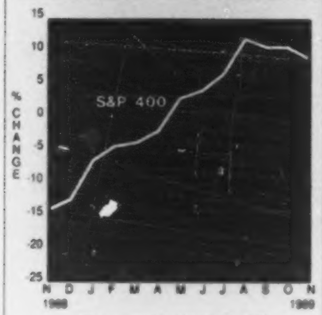
Since starting the incentive program three years ago, 30% of Garofalo's 2,000 sales representatives have collected. He claims his improved plan helps distinguish Numismatic from a slew of well-established competitors, all vying for the reps' attention.

"People spend so many hours working at their job that making the vacation hours is much more special, and they remember Numismatic in that light," says Garofalo. "You should see our postcard collection." ❑

Reported by Leslie Brokaw, Paul B. Brown, Teri Lammers, Martha E. Mangelsdorf, and Bruce G. Posner

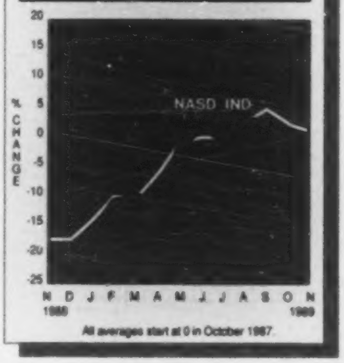
INVESTING IN GROWTH COMPANIES

INC. vs. [illegible]SERVATIVE AVERAGES



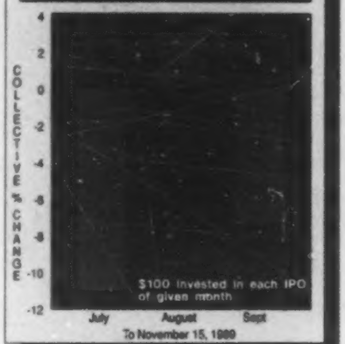
All averages start at 0 in October 1987.

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987.

IPOs IN THE AFTERMARKET



INITIAL PUBLIC OFFERINGS: OCTOBER 1989

O-T-C sym.	Company	Business/product	Offering Size ($ mil.)	Offering Price	First aftermarket bid	Underwriter
ALII	**Allied Capital Corp. II**	Closed-end fund	82.50	15.00	15	Shearson
AGAWU	**A.G. Automotive Warehouses**	Operates discount auto-parts center	6.75	6.00[b]	9½	D. H. Blair
CBLE	**Cable Applications**	Installs voice data systs.	3.00	5.00[c]	8⅜	R. H. Damon
CAER	**Caere**	Mfrs. information recognition software	22.50	12.00	16⅜	Alex. Brown
DGII	**Digi International**	Mfrs. computer networking hardware & software	13.00	10.00	10⅞	William Blair
EBPI	**Employee Benefit Plans**	Provides managed health-care svcs.	30.00	12.00	14¼	Dean Witter
EOG[a]	**Enron Oil & Gas**	Provides energy exploration svcs.	187.50	18.75	19½	First Boston
EXBT	**Exabyte**	Mfrs. computer storage systs.	28.50	10.00	12⅛	Goldman Sachs
FMI[a]	**Franklin Multi-Income Trust**	Closed-end trust	50.00	10.00	10	Dean Witter
HQOIU	**HQ Office International**	Operates discount office-supply stores	5.70	4.75[d]	5⅜	D. H. Blair
KNOW	**Knowledgeware**	Develops computer software	37.50	12.50	14	Montgomery
NRGN	**Neurogen**	Mfrs. neurological disorder treatment products	7.20	6.00	7⅛	Allen & Co.
RLLY	**Rally's**	Operates restaurant chain	26.20	15.00	17	Alex. Brown
ROBC	**Robec**	Sells microcomputers	14.18	10.50	10½	Robinson-Humphrey
STSN	**Sierra Tucson Cos.**	Operates substance-abuse facilities	30.00	12.00	12¾	Oppenheimer

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on NYSE; [b] units of 4 common + 4 warrants; [c] units of 2 common + 1 warrant; [d] units of 3 common + 3 warrants. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York, NY 10038.

STREET TALK Who woulda thunk it? Hardly two years after capitalism's big fall comes socialism's bigger fall! Certainly not holders of Lockheed, Northrop, United Technologies, McDonnell Douglas, and other blue-chip defense stocks. But well they ought to have started dumping as they did in November, when it suddenly dawned on Wall Street that disarmament might be for real. A few years ago, renowned hawk Herman Kahn referred to similarly painful but inevitable admissions as "thinking about the unthinkable." He meant atomic holocaust, however, not world peace.

Sure, Martin Marietta, Raytheon, Litton Industries, General Dynamics, and their ilk dropped about 10% on a single day, but in late November, with the DJI still pressing toward 2,700, apparently the true impact had yet to hit. What, for example, would happen in California, where 8% of the private economy is related to defense purchases? And what is to come of commerce in Massachusetts, another state with a population of defense contractors? There, insiders say, banks are sitting on loans of which some 30% already are in trouble, the Bank of New England alone facing over $1 billion worth of bad loans. Maybe Route 128 and Silicon Valley are destined to become the oil patches and Rustbelts of the new decade. But surely, after these many years of spending trillions on the Cold War, our economy should be able to mend itself in a sudden thaw.

—Robert A. Mamis

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FEBRUARY 1990
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THE MAGAZINE FOR GROWING COMPANIES

BUYING A BUSINESS

The diary of a family searching for their 'dream company'

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INVENTING ENTREPRENEURS:

How to get employees who can grow a business

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THE LANGUAGE OF BUSINESS:

Figuring out the numbers that really matter

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THE TOKYO CONNECTION:

How the Japanese are buying the next generation of Apple Computers

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DIARY AUTHOR HENDRIX F. C. NIEMANN AND FAMILY

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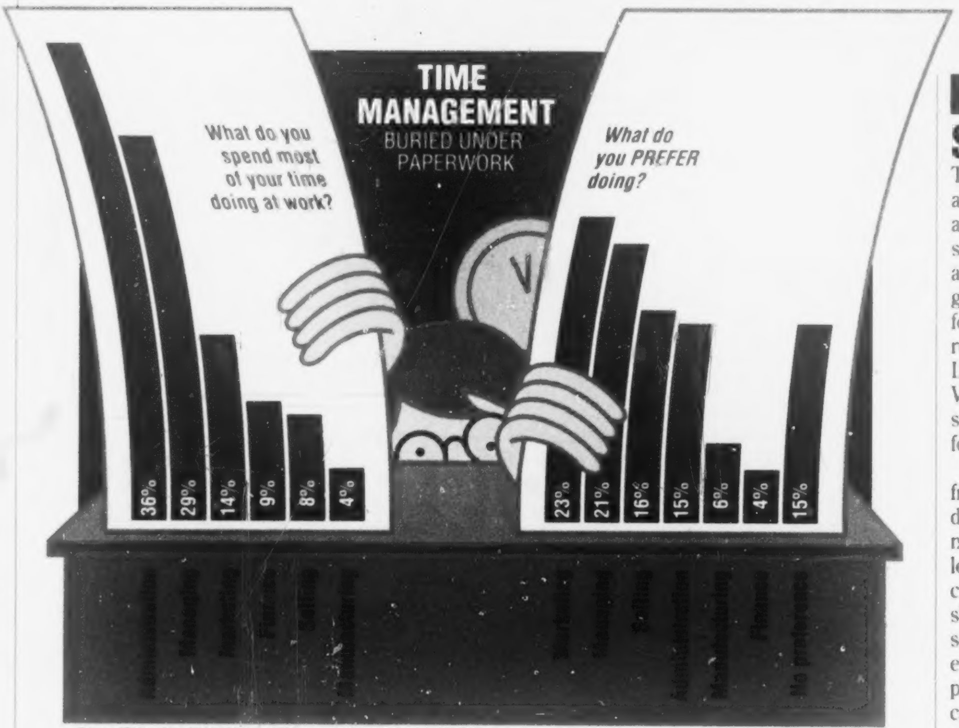
by
Enrico Ferorelli

HANDS ON

A Manager's Notebook



Source: "Pulse of the Middle Market 1989" survey by BDO Seidman of 1,873 active owners of businesses with $2 million to $100 million in revenues, New York City

TRAINING

SHOW AND TELL

To keep training dollars at work after an employee returns from a seminar or conference, consider having the employee give a mini-seminar afterward. It's a great way to make employees follow up on what they learn, reports Linda Miles, CEO of Linda L. Miles & Associates, in Virginia Beach, Va., which stages more than 100 seminars for dental-office staffs a year.

After staff members return from seminars, they report at a departmental meeting the three most important things they learned. The reports even make cross-training easier. "After our shipping clerk went to a postal-service seminar, all 20 of our employees learned how complex his job was and were more cooperative when changes came about," says Miles. ❑

RESOURCE

CONGRESSIONAL PRIVILEGE

International market research can command hefty prices, unless it's government data—then it's yours for the asking. One little-known source of refined data on overseas markets is the U.S. International Trade Commission. Because the commission reports on industry for trade representatives and Congress, its data are of a higher caliber than most government data available. Recent topics include Japanese forklifts, shock absorbers from Brazil, and ball bearings from nine countries.

For a bibliography of this eclectic mix of a few hundred reports, indexed by country and product, contact: Secretary's Office, Publications, U.S. International Trade Commission, 500 E St. S.W., Room 112A, Washington DC 20436. ❑

PURCHASING

PLAN ON IT

Forget about checking bank references if you're going to do work for a start-up. Ask to see the business plan, says Bill Drenttel, head of Drenttel Doyle Partners, a Manhattan design agency.

While it's always nice to get paid, if your client goes out of business before getting its product to market, you have nothing tangible to show for your effort, says Drenttel. That makes it harder to solicit new clients, who are going to ask to see examples of your work.

"We now always ask to see a business plan before we agree to do anything for a start-up," says Drenttel. "And if I don't understand the idea, I pass the plan along to a friend who does. I've learned that what I think is a neat concept is no guarantee of anything." So far, Drenttel says no one has balked at his request. ❑

SALES PROMOTION

MAKING A SPLASH

What do you do when your competitors can outspend you 100 to 1 on sales promotion? Make two or three big splashes a year instead of dozens of smaller ones, says Clifford Medney, who, as director of sales promotion for A&W Brands Inc., battles Coke and Pepsi for supermarket shelf space.

"Soft drinks is a $40-billion business," says Medney. "We just want our share." To get it, he times his promotions so they don't conflict with the giants.

Flexibility is key. "We do a root-beer-float campaign that can run any time between June and September. We leave it up to our bottlers and the stores to figure out when's the best time. If Pepsi has Michael Jackson in town, we're willing to wait. The secret is counterpunching." ❑

BENEFITS

CONTINUING EDUCATION

Want to score points with employees and keep them in tip-top shape? At $25-million Tassani Communications Inc., a Chicago advertising agency, employees can attend Food for Thought brown-bag lunches and listen to lectures on such topics as stress management, crime prevention, and time management. Says CEO Sally Tassani, "People enjoy topics that help them in their everyday life—things we tend to neglect when working long hours."

Tassani says attendance is better at irregularly scheduled lunches, which provide a break from routine, and when employees help choose topics. "For a couple hundred dollars per speaker, it's an inexpensive way to make this a fun place to work and learn," she says. ❑

CHARTS: ELLIOT BERGMAN

BOARD OF DIRECTORS

GOOD THINGS COME TO THOSE WHO WAIT

If your board of directors is strictly a family affair, you run the risk of a grisly boardroom scene by nominating a stranger to the board. To avert such battles, J. W. Kisling, chairman and CEO of Multiplex Inc., a beverage-dispensing equipment manufacturer in St. Louis, went about his boardroom appointments very patiently.

Over a five-year period, Kisling rotated 12 candidates through an informal board of three advisers. This not only gave Kisling a chance to check out the board candidates, but it also gave the three family directors time to warm up to the idea of outside input into their company. Because Kisling had invited the candidates to family social gatherings, the relatives on the board weren't put off when Kisling motioned to vote 3 of the candidates to the board. The family members voted for all 3.

The long-term strategy paid off. Kisling reports the outsiders have provided counsel that's helped Multiplex grow from $10 million to $25 million in seven years. "There are no fights, good exchanges, and very few tie votes," he says. ❑

BANKING

GROUP EFFORTS

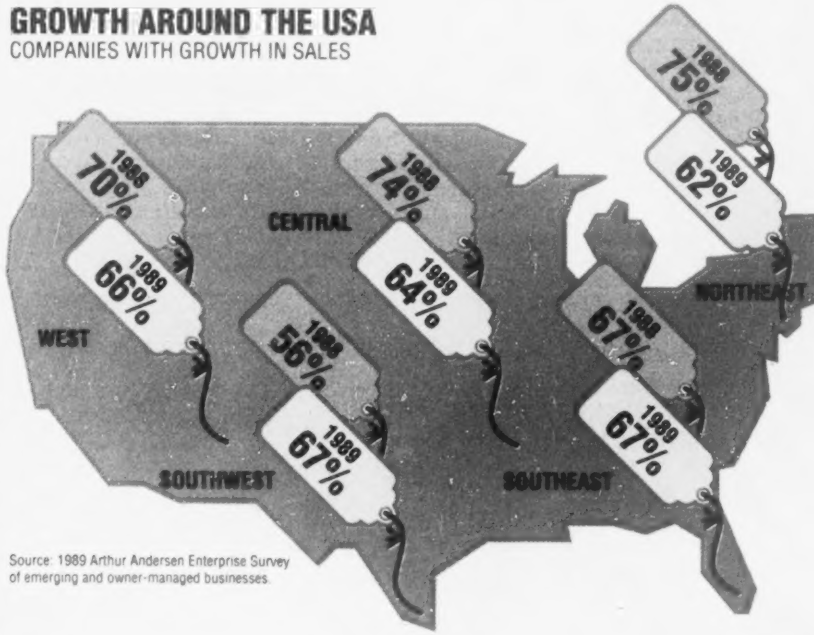
When negotiating with your banker, don't overlook what may be one of your strongest assets—your key executives. If you've invested in these people, why not turn over some of the banking duties to them and impress your banker with your ability to delegate?

That's what Leslie Otten, CEO of Sunday River Skiway Corp., a $23-million ski resort in Bethel, Maine, figured. "For years my banker knew that I was 'it' in the executive suite," says Otten. "That doesn't make a banker feel very comfortable. By 1986 I had assembled a solid team and wanted to let my banker know it." So now, once a year at Sunday River, the controller and operations and marketing executives take turns meeting with the banker to discuss their departmental plans and performance with him.

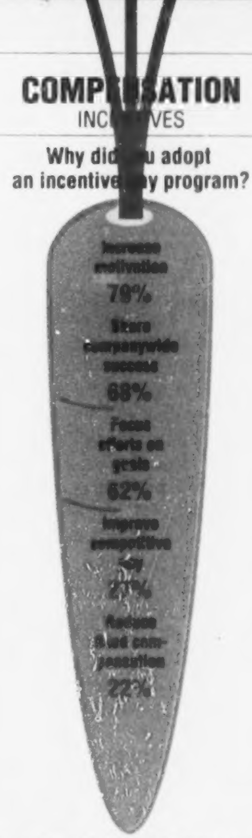
"The banker is pleased to have such substantive contact with my key people," says Otten, who has negotiated loan rates he's happy with. "He sees we have personal approaches but all sing in the same key." ❑

GROWTH AROUND THE USA

COMPANIES WITH GROWTH IN SALES



Source: 1989 Arthur Andersen Enterprise Survey of emerging and owner-managed businesses.



Source: Sibson & Co. "1990 Compensation Planning Survey" of 630 companies, Princeton, N.J.

HIRING

TESTING OUT

No matter how thoroughly you interview a job candidate, there's always the chance you'll miss something. To minimize the risk without giving people the third degree, consider assigning a take-home exam.

"I tend to be in a hurry," says Marilyn Ounjian, CEO of Careers USA, a Philadelphia employment agency. "Giving take-home exams forces me to be patient with hiring decisions."

Recently three marketing-director finalists were given the following assignment: "Work up some projections for the new program we discussed, and get them back to me whenever it's convenient." Only one candidate queried Ounjian for specifics needed to work up something more than a pie-in-the-sky answer. She also delivered her plan the next day. Ounjian hired her. "She wanted to manage the sales force and get them to do more. The others only wanted to spend more money," says Ounjian. ❑

HANDS ON (continued)

Reported by Paul B. Brown and Teri Lammers

MARKETING

WORST-CASE SCENARIOS

The last thing you want to happen when you're pioneering a new geographic market is to get halfway into it and find out it's a dud. "That's what's liable to happen if you go to the least risky spot first," warns Robert Black, cofounder of $27-million Superwash Inc., in Morrison, Ill. Black should know. Since 1982 he and his wife, Mary, have built 210 car washes and don't have one shaky territory in the country.

The Black method? Identify the biggest problem in a given market. Open up in a location with the highest concentration of that problem. If it works there, the market is golden.

In Oregon, rain was the problem. In Colorado, the problem was a $40,000 water hookup fee and an expensive real-estate market, so Black went into an affluent community and paid the fee. His gamble paid off.

There's still only one Superwash in the Pacific Northwest, but, after his positive experiences in Colorado, Black plans to expand in that market. ❑

MEETINGS

HOT SPOTS

To cut down on unproductive meetings, Melia Peavey takes her staff meetings directly to the trouble spot. "When you're cooped up in a meeting room the problem seems remote," says Peavey, COO of Peavey Electronics Corp., an 1,800-employee electronic musical instrument manufacturer in Meridien, Miss. "By going to the site you get decisions rolling quickly. The different managers can pick up on what needs fixing. The human-resources manager can see how employees work together. The MIS manager sees how employees use the computers. You can stop and question employees on the spot, rather than hearing secondhand what's going on."

When rejects piled up in the raw materials warehouse, for example, Peavey and her managers went right to work by cleaning up the debris and brainstorming about ways to improve operations. Today, the production department sorts rejects by vendor and salvages more parts, purchasing agents make weekly trips to the warehouse to avoid overordering, and the receiving staff takes more care in stacking raw materials.

"Employees are impressed that management is involved and not sitting in offices looking down on everything," says Peavey. ❑

ON THE CHEAP

SHARING PRINTERS

By Cary Lu

What's the best way for computer users to share a printer?

Well, the high-tech solution is a computer network that ties computers and printers together. But while this is easy with Macintosh computers, which all have a built-in network circuit, a network hookup for IBM PCs and clones can cost $250 to $800 per computer. There are alternatives.

The least expensive way to share a printer is to connect a single computer to the printer and have everyone else bring a floppy disk with their files on it to that computer. Sure, it's awkward, but it can work if one person in your office does all final document formatting and the bulk of the printing anyway.

A manual switch is a slightly more expensive but still cost-effective way to share a printer. These switches cost less than $50 and can connect two or four computers to one printer. You'll want to buy a switch with at least four positions, since a two-way switch isn't much cheaper. Anyone who wants to print a file flips the switch to his or her computer. It's still awkward, but at least you don't have to interrupt someone to print a document. Some printers—particularly expensive laser printers—can be damaged by a manual switch.

The best low-cost solution is a switch that senses electronically which computer needs to print and automatically connects it to the printer. The better automatic switches perform the switching without risk of damage to the printers and are not affected by whether the connected computers are on or off.

The lowest-cost brand-name automatic switch is the SmartPrint switch from Dresselhaus (Rancho Cucamonga, Calif., 800-368-7737). SmartPrint switches can connect two computers to one printer for $129, four computers for $199, or six computers for $229. Different models handle serial or parallel port printers. Since a computer can generate information faster than a printer can put it on paper, Dresselhaus supplies software with its switch that can turn a computer's memory or hard-disk drive into a printer buffer. The buffer accepts information quickly from the computer and passes it to the printer slowly, leaving the computer free to take on a new task. More expensive switches often come with buffer memory built in, but for most applications, a software-controlled buffer works just as well. ❑

HEALTH INSURANCE

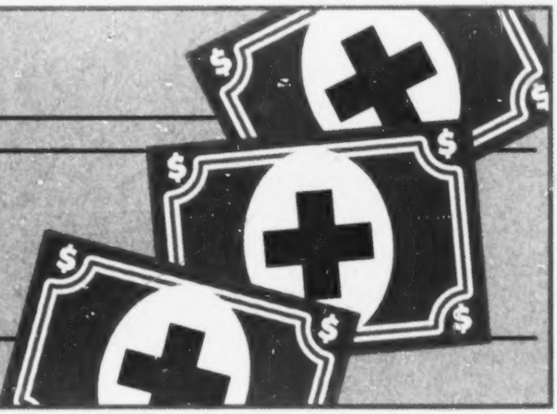
EXERCISES IN FUTILITY?

What have you done to control the cost of health/care benefits?

	Fewer than 100 employees	More than 100
Increased deductibles	38%	47%
Higher employee contributions	28%	41%
Second surgical opinions	32%	58%
Adopted preferred provider organization	7%	11%
Adopted health maintenance organization	28%	54%

Did the measure cut health/care costs more than 10%?

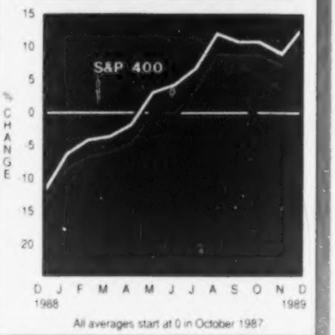
YES	31%	55%
NO	69%	45%



Source: 300 executives surveyed by Noble Lowndes, a benefits consulting firm, East Orange, N.J., 1989

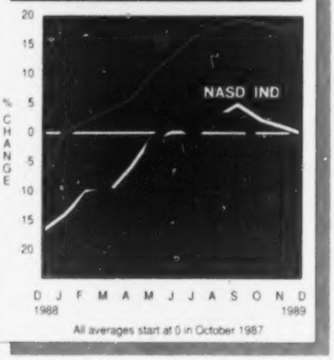
INVESTING IN GROWTH COMPANIES

INC. vs. CONSERVATIVE AVERAGES



All averages start at 0 in October 1987

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987

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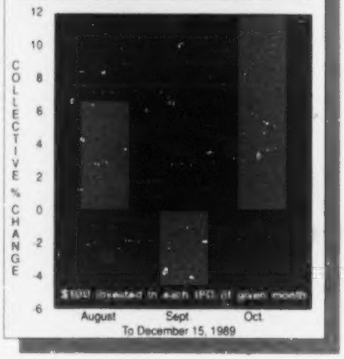

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INITIAL PUBLIC OFFERINGS: NOVEMBER 1989

O-T-C sym	Company	Business product	Offering		First aftermarket bid	Underwriter
			Size ($ mil.)	Price		
ALII	**Allied Capital Corp. II**	Closed-end fund	82.50	15.00	15	Shearson
AMTC	**Amtech**	Mfrs. radio frequency identification systs.	20.80	13.00	14¼	Smith Barney
CDRGU	**Cedar Group**	Distr. industrial metal fasteners	2.00	10.00[c]	11¼	M. H. Meyerson
CMSIU	**Cryomedical Sciences**	R&D of hypothermic medicine	5.00	5.00[d]	7	D. H. Blair
DSM[a]	**Dreyfus Strategic Municipal Fund**	Closed-end fund	350.00	10.00	10	Shearson
ECI[b]	**ECI Environmental**	Provides asbestos abatement svcs.	9.90	9.00	9	Oppenheimer
FTFC	**First Federal Capital**	Bank holding co.	0.38	11.50	13⅞	Blunt Ellis
FPF[a]	**First Philippine Fund**	Closed-end fund	69.00	12.00	13¼	Nomura
GEHL	**Gehl**	Mfrs. constr. & agricultural equip.	30.80	14.00	13⅞	Kashner
GPSX	**General Parcel Service**	Provides parcel delivery svcs.	3.00	5.00[e]	4⅞	Blunt Ellis
HBCI	**Harmonia Bancorp**	Bank holding co.	27.00	10.00	10	Shearson
HLTH	**Healthsource**	Manages HMOs	30.00	15.00	14¾	Kidder Peabody
HHGRU	**Helian Health Group**	Operates ambulatory-care facilities	5.00	5.00[e]	4½	Jesup
IMGN	**ImmunoGen**	Develops drugs for cancer treatment	15.00	10.00	9½	Paine Webber
LSCP	**Laserscope**	Mfrs. surgical laser systs.	16.33	9.00	11½	Alex. Brown
LSCC	**Lattice Semiconductor**	Mfrs. programmable logic devices	17.40	6.00	5¾	Dillon Read
MMIC	**Mass Microsystems**	Mfrs. computer boards & storage systs.	8.20	5.00	6¼	Penn. Merch.
MFV[a]	**MFS Special Value Trust**	Closed-end fund	90.00	15.00	15	Wheat First
NCP[a]	**Nuveen California Performance**	Closed-end fund	157.50	15.00	15	Alex. Brown
NNP[a]	**Nuveen New York Performance Fund**	Closed-end fund	90.00	15.00	15	Alex. Brown
PGF[a]	**Portugal Fund**	Closed-end fund	69.00	15.00	16⅛	Donaldson
POT[a]	**Potash Corp. of Saskatchewan**	Mines potash	80.80	15.33	15⅛	Merrill Lynch
PRCY	**Procyte**	Mfrs. biotechnology drugs	10.40	8.00	8	Bateman
RECPZ	**Receptech**	R&D biotechnology spinoff	2.00	12.00[f]	12	Prudential-Bach
RENL	**REN Corp. USA**	Operates dialysis treatment ctrs.	8.45	6.50	6½	J. C. Bradford
SLTN	**Solectron**	Mfrs. electronic parts	11.10	6.00	6⅛	Merrill Lynch
TSSLU	**TSS Ltd.**	Distr. coupons through terminals	7.50	6.00[g]	7	Commonwealth
CARS	**Urcarco**	Operates chain of used car lots	38.00	11.00	13⅞	Alex. Brown
VIG[a]	**VKM Investment Grade Municipal**	Closed-end fund	50.40	12.00	12	Paine Webber
WMCL	**William & Clarissa**	Mfrs. fragrances & personal-care prods.	5.00	5.00	5½	Whale Securities
YSCO	**Yes Clothing**	Mkts. women's apparel	6.60	8.50	8½	Seidler

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on NYSE; [b] units of 4 common + 4 warrants; [c] units of 2 common + 1 warrant; [d] units of 5 common + 5 warrants; [e] units of 1 common + 1 warrant; [f] units of 1 common of Receptech + 1 warrant of Immunex Corp.; [g] units of 3 common + 3 warrants. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York, NY 10038.

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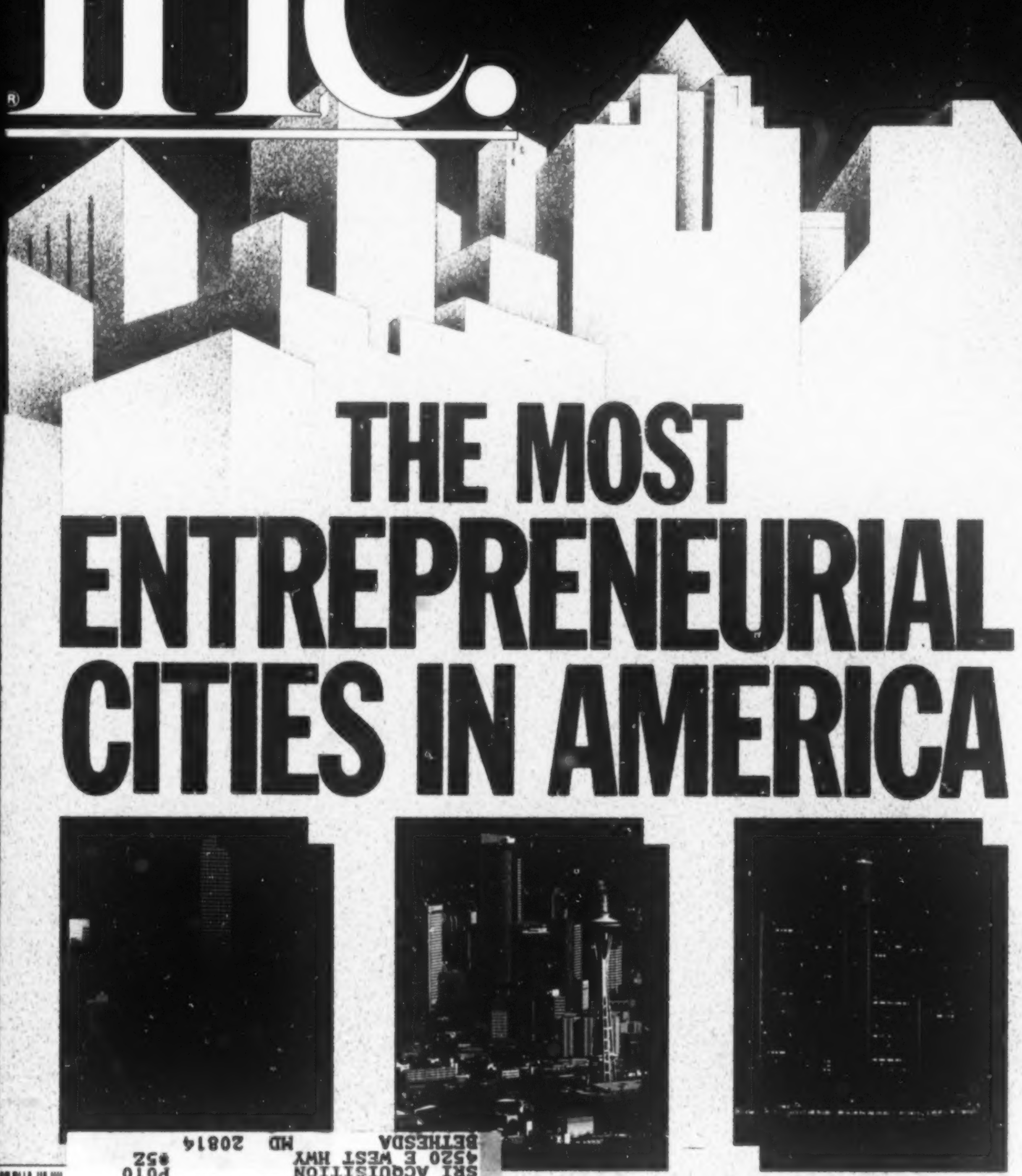

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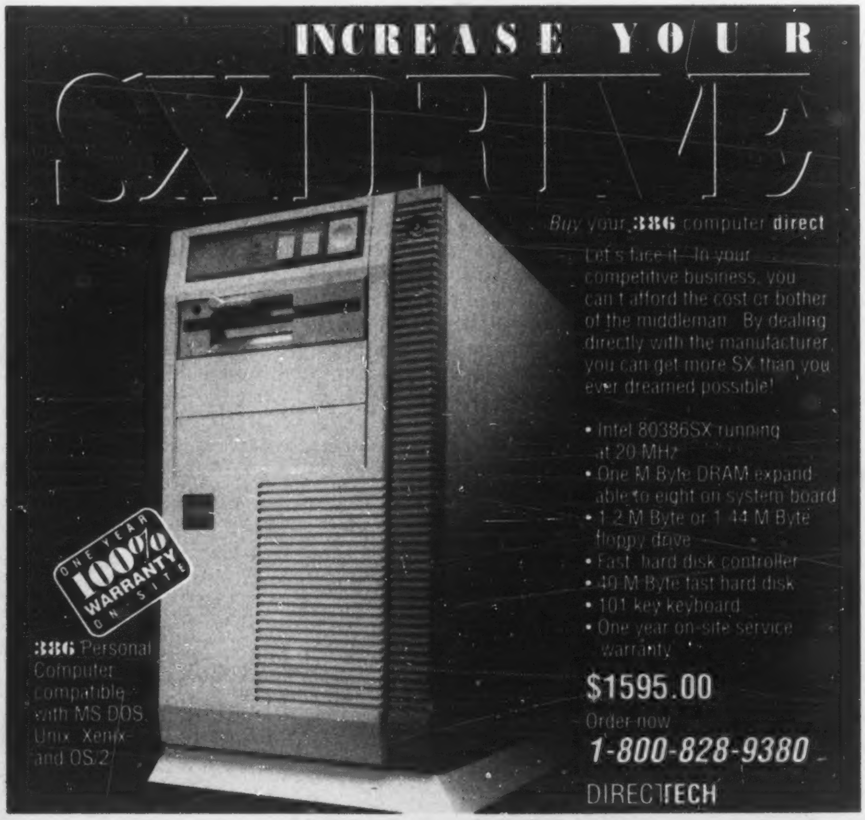

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LETTERS

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How does CompuAdd's new management structure deal with this level, where customers are won—or, in this case, lost?

Diana M. Schneider
President
Demos Publications Inc.
New York City

MORE ON VALUES

Way back in October, senior writer Tom Richman wrote a profile of Tom Chappell, founder and CEO of Tom's of Maine Inc. It was really the story of a quest: Chappell's search for meaning and values both in and beyond his business, a search that ultimately led him to study at Harvard Divinity School. Even now, readers are responding.

The portrayal of Chappell's spiritual odyssey and its effects on his company is the best piece of business journalism I have read in years. I was struck by the clarity with which the article conveyed his reflections on purpose, values, and vision in business. Many of us carry such convictions in our guts, inchoate and unformed until we meet them fully realized.

Anne DeMarsay
Editor-in-Chief
Educational Services Institute Magazine
Falls Church, Va.

HOUSE OF CORRECTIONS

Four companies were omitted from the 1989 INC. 500 list printed in last December's issue. The companies are listed below, along with their cities, lines of business, and five-year growth rates. We regret the error.

Async Corp.; Atlanta; provides voice-mail services; 4,998%

H. D. Vest Inc.; Irving, Tex.; provides financial products and services; 3,184%

KVH Industries Inc.; Middletown, R.I.; manufactures navigational equipment; 2,579% (1988 rank #176)

West Coast Video; Philadelphia; owns and franchises video rental stores; 2,517% (1988 rank #4).

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INC. METRO REPORT

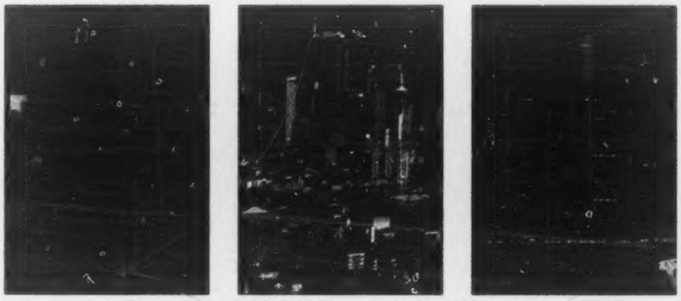
THE MOST ENTREPRENEURIAL CITIES IN AMERICA

Why some cities boom while others languish

BY JOHN CASE

Remember when you could tell how a city was doing by asking a knowledgeable question or two? In Cleveland you inquired about heavy-industry output, in Hartford about insurance. If airplane production was booming, so was Seattle.

Today, metropolitan prosperity seems to swell and recede for a hundred different reasons. Drive around Milwaukee, for example, and check out the shuttered, crumbling Allis-Chalmers Corp. complex, one of many moribund factories that once employed thousands of industrial workers. Then try to figure out why the region's unemployment rate is a tight 4%, and why the city's downtown is booming. Or drive around greater Houston, as staff writer Leslie Brokaw did not long ago (see "The Woodlands, Tex.," page 54). Oil isn't going anywhere—but the Houston metro area is coming back fast.



The wealth of cities: in an entrepreneurial economy, metropolitan regions prosper in unexpected ways.

All of which leads to a suggestion: scrutinize INC.'s 1990 ranking of entrepreneurial hot spots carefully. The list itself is simple enough, indexing metropolitan regions by job growth, business starts, and proportion of high-growth companies. But we think you'll find some surprises, both in the rankings themselves and in what our writers discovered as they set out to places as disparate as Las Vegas and northern New Jersey in search of the many new reasons for economic vitality.

Regional growth, after all, is a subject too important to be left to politicians and booster clubs. How your city is faring has a direct impact on how your business fares. And if you need to know where to find new customers, or new employees, or a site for a new branch—well, then, you'll need a mental map of America, color-coded for growth. The trick is to keep it up to date, which means understanding the distinctive features of 1990s-style economic development.

One phenomenon is so pervasive we've devoted a whole section to it: see David L. Birch's "Here Comes the Neighborhood," page 52, and the accompanying firsthand reports. If you don't mind an awkward phrase, call it the localization of growth.

Once, a metropolitan area rose and fell pretty much as a unit. Today, by contrast, you can find pockets of hothouse-style growth in and around cities that are otherwise languishing. Take Philadelphia: the region as a whole is a mediocre #88 on this year's ranking, down from an almost-as-mediocre #74 last year. But don't talk slow growth to the people and companies in the Route 202 corridor just west of the city; out there, roads that were country lanes only a few years ago are straining under the burden of rush-hour traffic from dozens of new office and industrial parks.

Phenomenon two: growth now depends on the role a city plays in the world marketplace, not just in the national economy. International trade was always important to big manufacturing centers and cities with deep-water ports. But the emerging global village has churned up a dozen new niches for enterprising metro areas.

Examples? The Battle Creek-Kalamazoo region in Michigan jumped from #130 last year to #57 this year, partly on the strength of $250 million pumped into the area by Japanese auto-parts and cable-parts companies. El Paso (#35) has capitalized on the so-called maquiladora program, the production-sharing arrangement between U.S. and Mexican factories—and is transforming itself from a sleepy, low-skill factory town into a sophisticated center of high-value manufacturing. And little Erie, Pa., taking advantage

ILLUSTRATIONS: MARK FISHER

PHOTOGRAPHS: DENVER, ALLEN BIRNBACH; SEATTLE, RICH FRISHMAN; DETROIT, MIKE DITZ

ERIC HANSON

The one Rustbelt city that just won't stop growing

#27 COLUMBUS, OHIO

Think boomtown. Think growth. Think . . . Central Ohio? If you didn't, think again. In the four years INC. has compiled its report on fast-growing cities, Columbus has been the only midwestern city to place in the top 50 each year. This year, Columbus is the top-ranked city in the industrial Midwest.

What's the secret? Largely the fact that Columbus is in the Rustbelt, but not of it. Because it's a state capital, about one worker in six is employed by state or local government—about the same as work in manufacturing. Of the city's top five employers, four are in the public sector (the state, Ohio State University, Columbus public schools, and the city of Columbus); the fifth is an insurance company. In business, the city excels in banking, insurance, distribution, and fast food. Columbus's boosters like to boast that the city's diversified economy is almost recession-proof. Maybe they're right: it's the only major city in the northeast quadrant of the United States to experience sustained growth since 1970.

Then there's that buzzword, quality of life. The city is clean, with good schools, reasonably priced housing, and a college-town atmosphere that helps attract and retain young people. Although it has surpassed Cleveland as Ohio's largest city, Columbus still has a certain small-town feel. "There's a great deal of civic pride in Columbus," says Larry Clark, co-owner of a catering business, Made from Scratch. "People really come after you to get involved."

Such sentiments are common among business boosters everywhere—but in Columbus, everyone seems to agree. Across the nation, says James Challenger, president of the outplacement firm Challenger, Gray & Christmas Inc., some 35% to 40% of his company's clients ended up going to a new city to get a job last year. Only about 1% will agree to leave Columbus.

Columbus ranks high in the section of INC.'s index that counts fast-growth companies. That's only fitting: the city is home to The Limited, Wendy's, CompuServe, and other entrepreneurial stars. But it has also attracted large corporations to the area, notably the immigrant Honda of America plant in nearby Marysville.

Drawbacks? A few. While Chamber of Commerce execs will say that both Battelle Memorial Institute and Ohio State spin off high-tech firms, they can name only one offhand. That may not be coincidence. "I would never move a high-tech company to Columbus," says James Ebright, whose Software Results Corp. nevertheless made the INC. 500 in 1983 and '84. "The infrastructure isn't really there." Then, too, Columbus lacks big-city attractions such as major-league sports teams.

All in all, there's probably no better summary of the city's strength and weaknesses than this one from a growth-company CEO who has lived there since childhood. "Columbus is a nice place to live," he says. "But you wouldn't want to visit there."

—*Martha E. Mangelsdorf*

METRO RANKING

1. **Las Vegas, NV** (6)
2. **Washington, DC** (5)
3. **Orlando, FL** (2)
4. **Tallahassee, FL** (61)
5. **San Jose, CA** (13)
6. **Atlanta, GA** (7)
7. **Charleston, SC** (19)
8. **Lincoln, NB** (72)
9. **Raleigh-Durham, NC** (4)
10. **Anaheim, CA** (8)
11. **Charlotte, NC** (29)
12. **Hickory, NC** (76)
13. **Wilmington-Jacksonville, NC** (36)
14. **Ventura, CA** (27)
15. **Nashville, TN** (15)
16. **San Diego, CA** (11)
17. **Chattanooga, TN** (96)
18. **Greenville-Spartanburg, SC** (84)
19. **Fort Myers, FL** (14)
20. **Sioux Falls, SD** (92)
21. **Stockton-Modesto, CA** (67)
22. **Reno, NV** (31)
23. **Baltimore, MD** (35)
24. **Jackson, MS** (73)
25. **Lancaster, PA** (51)
26. **Fort Pierce, FL** (21)
27. **Columbus, OH** (37)
28. **Jacksonville, FL** (16)
29. **Lexington, KY** (24)
30. **Norfolk-Portsmouth, VA** (18)
31. **Richmond, VA** (30)
32. **Honolulu, HI** (93)
33. **Atlantic City, NJ** (46)
34. **Tampa-St. Petersburg, FL** (33)
35. **El Paso, TX** (40)
36. **Huntsville, AL** (22)
37. **West Palm Beach, FL** (3)
38. **Melbourne-Titusville, FL** (56)
39. **Fort Lauderdale, FL** (NR)
40. **Seattle, WA** (43)
41. **Portsmouth, NH** (9)
42. **Panama City-Fort Walton Beach, FL** (23)
43. **Reading, PA** (153)
44. **Grand Rapids, MI** (58)
45. **Riverside-San Bernardino, CA** (12)
46. **Madison, WI** (75)
47. **Columbia, SC** (20)
48. **Wilmington, DE** (42)

[illegible]

BEST OF SHOW

1. **Lincoln, Nebr.**
2. **Washington, D.C.**
3. **Sioux Falls, S. Dak., and Reading, Pa. (tie)**

Source: Cognetics Inc., Cambridge, Mass.

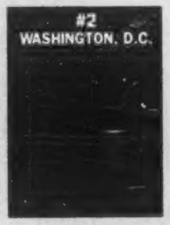
of newly liberalized trade with Canada, has climbed from #125 last year to #58 this year.

More and more cities are learning just how valuable a complex of colleges and universities can be to economic development. You expect to find technology-oriented growth around such higher-education centers as Boston and San Francisco. But look at Lincoln, Nebr., #8, home of a 20,000-student university, or Tallahassee, Fla., which jumped from #61 to #4, thanks in part to growing academic institutions such as Florida State University (28,000 students, up 5,000 from a few years ago) and Florida A&M University (which has seen a 36% increase in enrollment since 1984). "There's a good work force here," says a spokesman for General Dynamics Electronic Division, which recently decided to locate a major manufacturing facility in Tallahassee. "And

PHOTO: CHUCK O'REAR/WESTLIGHT

1990 Rank/City, State/1989 Rank

49. **Houston-Galveston, TX** (126)
50. **Mobile, AL** (101)
51. **Miami, FL** (63)
52. **Sacramento, CA** (49)
53. **Asheville, NC** (117)
54. **Los Angeles, CA** (59)
55. **Indianapolis, IN** (32)
56. **Greensboro-Winston-Salem, NC** (41)
57. **Battle Creek-Kalamazoo, MI** (130)
58. **Erie, PA** (125)
59. **Green Bay, WI** (100)
60. **Savannah, GA** (65)
61. **Des Moines, IA** (124)
62. **Columbus, GA** (158)
63. **Dallas-Fort Worth, TX** (26)
64. **Louisville, KY** (71)
65. **Santa Barbara, CA** (109)
66. **Memphis, TN** (57)
67. **Toledo, OH** (99)
68. **Gainesville, FL** (38)
69. **Portland, ME** (39)
70. **Minneapolis-St.Paul, MN** (50)
71. **Anniston-Gadsden, AL** (142)
72. **York, PA** (78)
73. **Birmingham, AL** (54)
74. **Portland, OR** (102)
75. **Montgomery, AL** (47)
76. **Metro New York (NJ), NJ** (69)
77. **San Francisco-Oakland, CA** (88)
78. **Sarasota, FL** (34)
79. **Phoenix, AZ** (10)
80. **Knoxville, TN** (62)
81. **Daytona Beach, FL** (80)
82. **Boise, ID** (95)
83. **Baton Rouge, LA** (122)
84. **Salt Lake City, UT** (79)
85. **Dayton, OH** (107)
86. **Harrisburg, PA** (81)
87. **Manchester-Nashua, NH** (1)
88. **Philadelphia, PA** (74)
89. **Peoria, IL** (172)
90. **Lima, OH** (135)
91. **Salem, OR** (147)
92. **South Bend, IN** (44)
93. **Rochester, MN** (165)
94. **Burlington-Montpelier, VT** (28)
95. **Albuquerque, NM** (60)
96. **Allentown, PA** (148)
97. **Fayetteville, NC** (141)
98. **Tucson, AZ** (25)
99. **Roanoke, VA** (104)
100. **Eugene, OR** (120)
101. **Lafayette, LA** (188)
102. **Boston, MA** (53)
103. **Johnson City-Kingsport, TN** (138)
104. **Denver-Boulder, CO** (94)
105. **Pittsfield, MA** (145)
106. **Chicago, IL** (119)
107. **Little Rock, AR** (137)
108. **Fort Wayne, IN** (45)
109. **New York, NY** (108)
110. **Cincinnati, OH** (90)
111. **Pittsburgh, PA** (139)
112. **Syracuse, NY** (98)
113. **Rochester, NY** (83)
114. **Springfield, MO** (77)
115. **Detroit, MI** (89)
116. **Binghamton-Elmira, NY** (116)
117. **Omaha, NB** (103)
118. **Bridgeport-Stamford, CT** (66)
119. **Bakersfield, CA** (151)
120. **Pensacola, FL** (48)
121. **Cleveland-Akron, OH** (134)
122. **Lansing, MI** (113)
123. **Providence, RI** (118)
124. **San Antonio, TX** (55)
125. **Lakeland-Winter Haven, FL** (87)
126. **Evansville, IN** (159)
127. **Augusta, GA** (97)
128. **Worcester, MA** (64)
129. **Brownsville, TX** (168)
130. **Buffalo, NY** (140)
131. **Fargo, ND** (115)
132. **Huntington, WV** (161)
133. **Kansas City, MO** (86)
134. **St. Louis, MO** (111)
135. **Fort Smith-Fayetteville, AR** (52)
136. **Tulsa, OK** (169)
137. **New Haven, CT** (82)
138. **Lynchburg, VA** (182)
139. **Anderson-Muncie, IN** (180)
140. **Topeka-Lawrence, KS** (143)
141. **Biloxi, MS** (127)
142. **Albany, NY** (91)
143. **Wichita, KS** (68)
144. **Charleston, WV** (167)



145. **New Orleans, LA** (175)
146. **Long Island, NY** (106)
147. **Fresno, CA** (129)
148. **Macon, GA** (105)
149. **Bloomington-Champaign, IL** (136)
150. **Scranton-Wilkes Barre, PA** (155)
151. **Poughkeepsie, NY** (112)
152. **Odessa-Midland, TX** (191)
153. **Austin, TX** (17)
154. **Johnstown-Altoona, PA** (160)
155. **Monterey, CA** (70)
156. **Milwaukee, WI** (121)
157. **Hartford, CT** (85)
158. **Spokane, WA** (149)
159. **Lubbock, TX** (181)
160. **Metro New York (NY), NY** (114)
161. **Williamsport-State College, PA** (146)
162. **Longview, TX** (170)
163. **Youngstown, OH** (131)
164. **Oklahoma City, OK** (184)
165. **New Bedford-Fall River, MA** (150)
166. **New London, CT** (133)
167. **Cedar Rapids, IA** (132)
168. **Canton, OH** (163)
169. **Utica-Rome, NY** (173)
170. **Waco-Killeen, TX** (123)
171. **Saginaw-Bay City, MI** (164)
172. **Rockford, IL** (128)
173. **Lafayette, IN** (171)
174. **Anchorage, AK** (174)
175. **Corpus Christi, TX** (185)
176. **Springfield, MA** (144)
177. **Fort Collins, CO** (157)
178. **Duluth, MN** (179)
179. **Beaumont, TX** (183)
180. **Flint, MI** (154)
181. **Yakima-Richland, WA** (186)
182. **Visalia, CA** (156)
183. **Colorado Springs, CO** (110)
184. **Amarillo, TX** (187)
185. **Shreveport, LA** (189)
186. **Springfield, IL** (166)
187. **Davenport-Rock Island, IL** (177)
188. **Monroe, LA** (178)
189. **Tacoma, WA** (152)
190. **Terre Haute, IN** (162)
191. **Wichita Falls, TX** (176)
192. **Wheeling, WV** (190)

there's the added incentive of state-funded employment training at the colleges and universities."

Even Birmingham, Ala., #73, whose fortunes once followed the steel industry's, has learned the education lesson. "The University of Alabama at Birmingham is now the city's largest employer," points out Lisa Roberts of the city's economic-development office. "And its medical research has led to spin-offs such as the Southern Research Institute." It has also made the city an attractive location for such companies as Nidek Medical Products Inc., a growing $3-million manufacturer of oxygen concentrators for home health care. "We use the Southern Research Institute's testing facilities for our new health-care ideas to see if they would be sound products," says Nidek president Anand Chitlangia. *(continued)*

[illegible]

BEST OF SHOW

1. **Las Vegas, Nev.**
2. **Orlando, Fla.**
3. **Charleston, S.C.**

Source: Cognetics Inc., Cambridge, Mass.

LEFT: KENNETH GARRETT/WESTLIGHT, RIGHT: J. MESSERSCHMIDT/WESTLIGHT

Gambling makes the desert bloom—and so do a host of new businesses

#1 LAS VEGAS

Poor Dennis Stein. Anywhere else he'd be a hero for his role in attracting 56 new companies with roughly 2,000 new jobs in a single year. In Las Vegas, though, Stein's Nevada Development Authority operates in a shadow. On the Strip, Golden Nugget Corp. builds The Mirage, a 3,000-room hotel-casino with volcano and tropical rain forest, adding 6,000 jobs to the market in a single month. Circus Circus's 4,000-room Excalibur hotel-casino will employ 5,000 when it opens, probably in June. "It's hard to compete with that," complains Gerald Sandstrom, who works for Stein.

Gambling is to Las Vegas as government is to Washington, D.C.: whatever secret pride they feel, most people living in either place say that their town really isn't so different. "It's not the glitter gulch that everyone thinks it is," insists Nevada governor Bob Miller. "You see people down on the Strip acting strange? Those are the visitors, not the residents." Says Ken Hix, a Colorado contractor who came to town to start Mirimar Systems Inc., a company that assembles and sells lightweight architectural mirrors: "Once you get away from the Strip, this is just like any other town."

Not exactly *any* other town. Top-ranked Las Vegas—and surrounding Clark County—is exploding. Every month between 3,000 and 5,000 people move there. Big companies such as Levi Strauss and T. J. Maxx are establishing distribution centers in Clark County, so they can service the West Coast without paying West Coast prices for land, construction, and help. Following the same theory, Peachtree Doors Inc. has set up manufacturing and assembly operations there, while Ocean Spray Cranberry is planning on doing so. Citibank and Montgomery Ward Credit Corp., among others, have located financial service centers in Vegas to tap a labor force that has had lots of practice counting. And small companies such as Hix's are proliferating.

People concerned about the city's image—officials, developers, and economic-development specialists—complain about its reputation. "Quality of life is a hard sell here," says Nevada Development Authority vice-president Bill Kellar, "because people look at us through the veil of gaming." Without gaming, though, the same people concede that Las Vegas would be just one more southwestern city on a run of good luck. Gambling distinguishes Las Vegas from Phoenix and Denver, whose streaks have petered out. And gambling still accounts for more than 25% of the city's jobs, a proportion that's holding steady despite the growth in other kinds of work. "We've got an industry with virtually no competition," says John Goolsby, president of Summa Corp., a developer.

The business and government elite of Las Vegas gathered in a ballroom near the foot of The Mirage's volcano last December to hear about the prospects for 1990. The forecast, not surprisingly, was for more of the same: growth. The bad news came from Ralph Piercy, managing partner at the accounting firm of Laventhol & Horwath. "Gaming will still overshadow all that diversification we heard about this morning," he said. "We'll still be known as a one-industry town."

Poor Dennis Stein.

—Tom Richman

Finally, there's a new twist emerging on the old model of the one-industry town. In the past, when you thought of Akron's tires or Pittsburgh's steel, the names of a few big companies came to mind. The cities prospered or declined with the prospects of a couple of corporations. Today, cities are developing industrial specialties without depending on two or three giant employers.

The classic case is California's Silicon Valley. Large employers such as Apple Computer Inc. and Intel Corp. have, like most big companies, been bounced around by the vagaries of the high-tech marketplace. But the San Jose metropolitan area remains near the top of our list because it's still an unparalleled incubator for smaller technology companies. You can see a similar phenomenon, albeit on a more modest scale, in cities as far away as Sioux Falls, S. Dak., and Charlotte, N.C. Sioux Falls (#20) claims to have more retail space per capita than any other city in America. Its 93-acre Empire Mall already includes 180 stores, and more are on the way, along with a $3-million expansion of the nearby Encore Hotel, designed to accommodate overnight shoppers. Charlotte's booming growth (#11 on this year's list, up from #29 a year ago) can be traced to its emergence as a banking center and a hub for product distribution, with many different companies in each industry.

As for Milwaukee, its sorry ranking (#156) on this year's metro list reflects above all a slow rate of net employment growth—and it's true that the city hasn't yet come back from the decline of heavy-industry giants such as Allis-Chalmers. However, Milwaukee neither looks nor feels like an economic basket case. The old Schlitz brewery, abandoned when The Stroh Brewery Co. bought out the beer that once made Milwaukee famous, is now a thriving office complex. Out in suburban Waukesha County—the localization of growth, again—companies are proliferating so fast there's a chronic labor shortage (see "The Economic Microscope," November 1989). Even the industrial suburb

[illegible]

BEST OF SHOW

1. Atlantic City, N.J.
2. Las Vegas, Nev.
3. Fort Pierce, Fla.

Source: U.S. BLS and Woods & Poole Economics, Washington, D.C.

PHOTOGRAPHS: PATRICK HARBRON

of West Allis isn't doing so bad. Although it lost more than 8,000 jobs from Allis-Chalmers and other big manufacturers in the 1980s, it gained several thousand other jobs, mainly from newer and smaller companies. Watch for the Milwaukee region to climb on future metro rankings.

The lesson? Economic growth is where you find it. But you can find it, these days, in many different places—and for many different reasons. ❑

Research assistance was provided by Lisa D. Royal.

Even after Hurricane Hugo, a booming economy with antebellum allure

#7 CHARLESTON, S.C.

This three-century-old city came back from the war of 1861 and from the earthquake of 1886. No doubt Charleston will also recover from the hurricane of 1989.

Indeed, hardly had Hugo departed than out-of-town investors were betting that the region's pre-storm economic gains hadn't gone with the wind: four-term mayor Joseph P. Riley Jr. was breaking ground for a new $18-million hotel, even as nearby crews noisily hammered roofs back onto ravaged offices and stores. "Charleston," savored one of the participating hoteliers, "is New Orleans without the sleaze—and you can get higher room rates."

Charleston has maintained its antebellum allure despite a fast-paced industrial revival. Today, tourism is the city's biggest private employer, outranked only by the U.S. military. City leaders managed to keep their history intact not so much through foresight as through default: for decades host to navy-base commerce (read, red-light district), Charleston had neither the funds nor the motivation to sacrifice vintage structures to high rises. The old edifices, now in the process of being revivified, were spared expansionist extinction.

Not to put the knock on the North, but Charleston's palm-treed quality of life, in which you can fish, sail, and/or play golf year round, is a major selling point. True, that's an attraction of San Diego and Miami—except in this long-neglected region a businessperson can buy the same house for $180,000 that would cost five times as much in most other enterprise-hungry places. Thus the following tactic: cash out plant and home from Long Island or similarly top-valued place, set up around Charleston, and pocket millions of instant cash in the rollover. There's plenty of affordable space, a pool of right-to-work labor, and financial incentives galore.

Not that all the Trident region's gains have been another region's loss: many businesses are expanding into the area without giving up their home base. Gerry and Ron Weil own Swiss American Importing Co., a St. Louis company that has opened an 18-employee satellite operation in Charleston. The company's imported cheeses used to be trucked from New York City; now, they arrive through the deep-water Port of Charleston's three huge container facilities, bustling evidence of the region's well-managed growth. LG Industries, a paper-machinery company that will employ 30 people, is expanding its operations into the Charleston countryside (but still close to the airport) to take advantage of the enhanced tax breaks granted to rural enterprise.

In a homebred variation on economic development, Johnson & Wales University at Charleston—a branch of the Providence-based college—got its start in the small-business incubator that Control Data Corp. runs in the city. J&W U is an accredited institution that grants two-year associate degrees in culinary arts—and whose graduates spill out into the area and open fine restaurants, which attract rich tourists, who spend lots of money in the shops, which order truckloads of merchandise, which encourages manufacturers. . . .

You get the idea. Charleston wasn't blown away by Hugo. *—Robert A. Mamis*

HOW THE CITIES WERE RANKED

Our fourth annual report on metropolitan areas is based on three factors: job generation, rate of significant new business start-ups, and the percentage of young companies enjoying high growth rates. For each factor, each metropolitan area was assigned a score from 1 to 33.33, reflecting its relative standing among cities in the United States. The overall rank of a city was based on the sum of the three scores.

Metropolitan areas were defined as counties or groups of counties closely related by commuting patterns. In general, a densely settled suburban community was grouped with an urban county if 15% of its residents reported working in the city. To be considered a metropolitan area, each county or group of counties must have at least 100,000 jobs or 200,000 people.

This year, to make our report more accurately reflect current conditions, we changed the period of time covered. So the data reflect the change from January 1987 to July 1989, a two-and-one-half-year period, rather than the four and a half years in previous reports.

The rate of significant business births was derived by dividing the total number of enterprises in an area into the number founded since January 1987 that had 10 or more employees by July 1989. The number of high-growth companies was figured as a percentage of all companies founded between January 1981 and January 1985. For each company, an index was calculated by multiplying its absolute growth in employment between January 1987 and July 1989 by its percentage of employment growth. Companies with an index of 20 or higher were classified as high growth. Employment figures measure the change in private nonagricultural and civilian public-sector employment between January 1987 and July 1989.

Data on companies were compiled by Cognetics Inc., a Cambridge, Mass., consulting firm. Job data were supplied by the U.S. Bureau of Labor Statistics and Woods & Poole Economics Inc., a research firm in Washington, D.C.

The ranking was prepared by special projects editor Sara Baer-Sinnott. For a complete listing of all rankings or for information on reprints, please call (800) 372-0018, ext. 3420.

INC. METRO REPORT

HERE COMES THE NEIGHBORHOOD

Some of America's fastest growth occurs within our slowest-growing cities

BY DAVID L. BIRCH

Sometimes—so it seems—INC.'s annual ranking of metropolitan hot spots can get pretty boring. Aren't the same areas always near the top of the list? Such cities as Orlando, Atlanta, and Anaheim ranked high last year, rank high this year, and will probably rank high again next year. Chicago, Cleveland, and New York City, similarly, are always lost in the list's bottom half. Ho hum.

But before you fall asleep, ponder a couple of questions: why does Pittsburgh have more rapidly growing companies than Tampa? Why does Detroit have more than Dallas, and St. Louis as many as San Diego?

A moment's reflection will persuade you of a simple but often-ignored truth. The perennially top-ranked cities are up there not because they are better but because they are newer.

Different metro areas have matured at different points in our history. Cities in the Northeast began taking shape before the Industrial Revolution. Rustbelt regions boomed in the nineteenth and early twentieth centuries. Walk around some of the decaying industrial sections of Baltimore or Buffalo. These areas still house a lot of industrial and commercial baggage—older companies, many of them stagnant or declining. That hurts their averages.

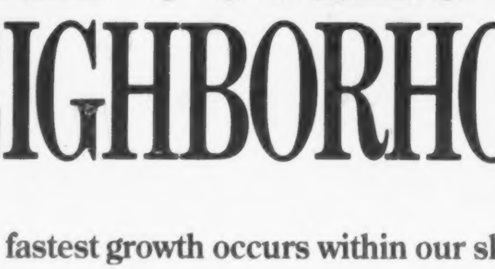
The newer areas have come to maturity just since the end of World War II. (Only 167,000 people lived in Phoenix in 1946, for example, as compared with 2.2 million today.) As a result, they inherited little of this baggage. They house relatively few older *Fortune* 500 factories; they've scarcely been touched by the 3.5 million jobs eliminated by the 500 since 1980. When it comes to averages, the new cities have lots of ups and very few downs. No wonder they score high.

But the mixed-bag economy in the older cities has already produced a strong counterforce: a legion of talented, energetic men and women who have benefited, so to speak, from the experience of the past 100 years. No longer enamored with life in the large corporation, they are seeing niches the giants can't touch. They're developing technologies that are economical on a small, entrepreneurial scale. And as INC. readers well know, they're creating a host of fast-growing companies. Maybe the *Fortune* 500 eliminated millions of jobs in the past decade—but more than two-thirds of those losses have been replaced by smaller companies *within* the manufacturing sector.

Geographically, this new breed is settling in neighborhoods somewhat different from the haunts of their old-economy ancestors. Some are building their businesses out on the far fringes of the metropolitan area, often near an airport or a new highway. Look up Chesterfield, Mo., on a map and you'll find that it's quite some

BOOM NEIGHBORHOODS

High-growth regions in and around older cities (selected)



1. **Melville-Smithtown, N.Y.**
2. **Elk Grove Village-Arlington Heights, Ill.**
3. **Bethpage-Farmingdale, N.Y.**
4. **West Chester-Wayne, Pa.**
5. **Des Plaines-Northbrook, Ill.**
6. **Livonia-Plymouth, Mich.**
7. **Edison-Woodbridge, N.J.**
8. **Pittsburgh central business district**
9. **St. Louis-Chesterfield, Mo.**

Source: Cognetics Inc.

INC. METRO REPORT

distance from St. Louis. Others are recapturing run-down industrial districts, such as East Cambridge, Mass. (see "The Most Entrepreneurial Place on Earth," page 60). A third group—like the new service businesses sprouting up in midtown Manhattan, Chicago's East Loop, or Pittsburgh's central business district—are squeezing themselves in amidst the high-rise headquarters of much larger companies.

What these entrepreneurs have created is a new set of boom areas in older cities. You won't find them in the rankings on pages 42 and 43, because INC.'s annual listing focuses only on metropolitan areas as a whole. But they're every bit as vital as Las Vegas or San Jose.

To get a better handle on this phenomenon, my colleagues at Cognetics and I created a new business geography, breaking the United States up into nearly 1,300 "metropolitan neighborhoods." New York or Los Angeles contains 50 or 60 of these subareas. Smaller cities might contain 15 or 20. The areas are designed to isolate different kinds of economic activity, and to distinguish between growth and decline.

The chart on page 52 lists several of the fastest-growing neighborhoods in older cities, chosen from the top 25 (ranked by number of high-growth companies). Just below the top 25—but still in the top 10% of *all* metro neighborhoods—are sections of Kansas City, Cleveland, Milwaukee, and Cincinnati. In fact, when you print out a list of that overall top 10%, you find that exactly half are in older cities.

What kind of businesses are found in places like Melville, N.Y., Northbrook, Ill., and Livonia, Mich.? They are companies such as The Softa Group, 25 miles north of Chicago in Northbrook. Softa—#497 on last year's INC. 500 and still growing at 40% a year—makes and distributes software for real-estate developers, managers, and investors. "Northbrook is a neighborhood where there's

A town near Houston comes back fast from the oil crash

Here Comes the Neighborhood:

THE WOODLANDS, TEX.

During the gluttonous, heady years of the oil frenzy, Houston didn't give much thought to anything as academic as economic development. Energy-related business poured into the city; entrepreneurship didn't have to be enticed. "In those days," says John Brock, head of the five-year-old Houston Economic Development Council, " 'economic development' consisted of sending out a city map."

No more. As oil prices plummeted in the 1980s, Houston went through a massive depression, losing 220,000 jobs. Yet in spite of the drop—many would argue because of it—the city is rebounding with astounding vigor. More than 125,000 jobs have been added back in the past three years. Some 300 new companies open each month. "The success you're seeing," says Brock, "comes simply because people were desperate."

The Woodlands

Ringing Houston, in fact, is a 20- to 30-mile radius of communities bursting with new activity. Consider The Woodlands, 30 miles north of Houston center, developed in the 1970s as a place where people would live, work, and play. The Woodlands is capitalizing on a growing regional infrastructure to encourage high-tech companies—an infrastructure that's emerged from what one Houston official calls a "united recognition of our deficiencies." Among its components:

- BCM Technologies, a wholly owned but separately managed subsidiary of Baylor College of Medicine. BCM identifies research that has commercial possibilities and offers management help to start-ups;
- Free or almost free help from the public Small Business Development Center—tracking down technical assistance, arranging advisory boards, finding government contracts through a matchmaking program;
- Tax-incentive programs (notably to keep $2-billion Compaq Computer Corp.'s expansion in the region) and a capital-raising service spurred by the one-year-old private Greater Houston Partnership;
- Homegrown venture capital from Woodlands Venture Partners, which works with BCM and the partnership in funding biomedical start-ups.

Some 12 companies and six research institutions now inhabit what's called Research Forest in The Woodlands, an area that officials hope will turn into the next Silicon Valley or Route 128. And while Martin Sutter, managing partner of Woodlands Venture, concedes that the economic impact of the biotech industry isn't yet colossal—indeed, about 60% of Greater Houston's jobs are still oil-related—he says the groundwork is being laid. "If a new pharmaceutical company becomes successful, it will be big. If we have one, much less two companies like that, you'll be seeing manufacturing facilities and new employees not unlike the petrochemical companies that now line the channel."

Everything that's coming together, he says, is a natural. "Most communities talk about creating something out of nothing. But here we had the structure with the universities. It's just that, for years, nobody took a role in capitalizing on that." Adds Phil Ralston, CEO of Optex Biomedical Inc., a company spun out from Texas A&M and now operating in the heart of The Woodlands: "This is a community that really does work. A little bit of paradise in this part of Texas." *—Leslie Brokaw*

INC. METRO REPORT

still room to grow," says Larry Zinox, a principal with the company.

In general, fast-growing businesses in these new boom neighborhoods are small. According to Cognetics's data, 70% have fewer than 20 employees and 93% fewer than 100. The majority are locally owned. And they're highly diverse. About 20% are in business and professional services, with another 16% in general manufacturing. High-tech manufacturing accounts for only 2% of the companies.

Most important from an international point of view, companies in these high-growth neighborhoods are competing successfully abroad. Nearly 5,500 are exporters. And surprisingly, most of the companies that ship their goods or services overseas are themselves quite small: about 85% have fewer than 100 employees. Examples? Galison Books, an INC. 500 company in midtown Manhattan with four full-time and six part-time employees, sells its address books and other products in France, Italy, England, Japan, Canada, Australia, and New Zealand. Qosina Corp., a Melville, N.Y., manufacturer of medical and cosmetics disposables, also has only four full-time employees—but sells to England, Germany, and the Netherlands.

You can, if you want to, compare Orlando with Pittsburgh, or Anaheim with Chicago. And you'll find, year after year, that the newer Sunbelt cities score higher on the entrepreneurial averages than the older cities. But when you put the economic microscope on the older cities—looking at neighborhoods and regions *within* the metro area—you find at least as much growth and vitality there as in the high-ranking regions.

As with so many things in life, it pays to look below the surface. ❑

David L. Birch is president of Cognetics Inc., in Cambridge, Mass.
Research assistance was provided by Lisa D. Royal.

Still-booming real estate outside New York City

Here Comes the Neighborhood:

MONMOUTH COUNTY, N.J.

My hometown? In the metro rankings? As the horse thief said when they were about to run him out of town: if it weren't for the honor of the thing, I'd just as soon not be involved.

OK, so the Holmdel-Red Bank-Eatontown region of central New Jersey is booming, even though the rest of metropolitan New York City is sluggish. But do we really have to tell everybody? Periodically, it seems, we get discovered, and when we do people come to look, and some of those visitors then have the bad grace to move in. "You get all these New Yorkers who go out for a Sunday drive and think they've discovered heaven," says Bob McIntosh, owner of Empress Travel in Middletown, the municipality separating Holmdel from Red Bank. "They're close to New York yet still in the country."

Staten Island
Monmouth County

Close? My daily commute to Manhattan runs an hour and 45 minutes each way. Maybe that's why so many people have chosen to work where they live. Bell Labs started it all: the research arm of AT&T has been here since the 1960s. Prudential has a sprawling campus-like office complex in town (don't tell them we use their softball field on Sundays), and Chase Manhattan has taken an option on another huge chunk of land.

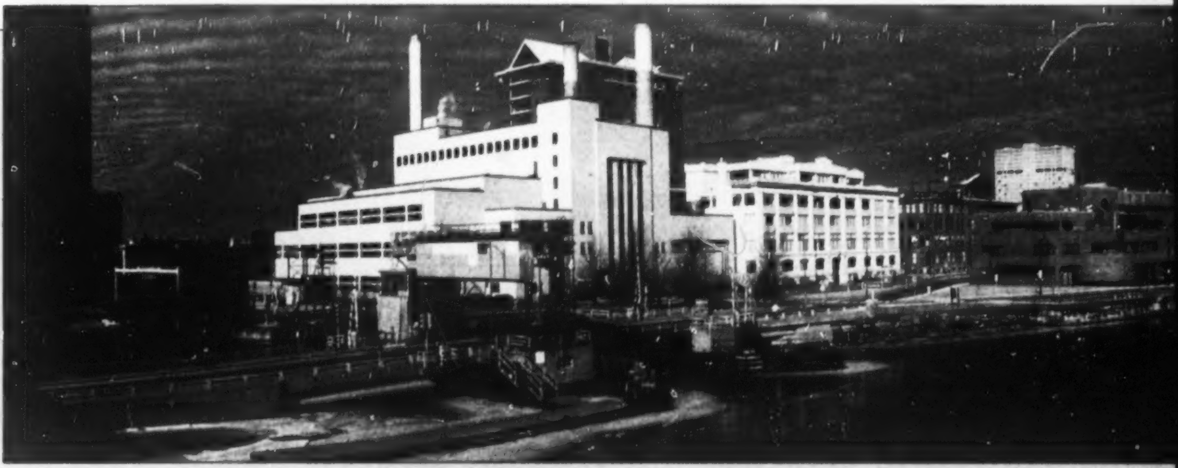
And it's not just the big boys who like the area. Leonard P. Cuozzo, who grew up in Keyport, just east of Holmdel, has decided to stay. Cuozzo runs fragrance manufacturer Paul Sebastian, number #228 on the 1989 INC. 500, down in Ocean Township, which is adjacent to Eatontown. Says Cuozzo: "We just don't have to be in the city. We don't even have an office there. We can do a lot of our business by phone, fax, and overnight mail." Customers? Cuozzo sends sales reps out to department stores, and sees buyers from men's specialty stores at trade shows. No downtown location necessary.

Where businesses go, support services follow. So it's not surprising that East Coast Computer Systems, a business-to-business marketer ranking #110 on the 500, is here as well. "While we have sales up and down the East Coast, most of our business is here," says company president Marbeth J. Shay, who, like me, happens to live in Holmdel. "There's absolutely no reason to go anywhere else." With all this activity, retailers are tripping over one another to set up shop here—and that's another reason I hope we'll keep the whole thing quiet. Consider our newest shopping area: The Grove at Shrewsbury, about halfway between Holmdel and Eatontown. It's like a caricature of yuppie shopping habits. Among the 30 stores: The Gap, Gap Kids, Williams-Sonoma, Eddie Bauer, and Workbench. Banana Republic is opening soon.

Prosperity isn't all bad, of course. Those of us who were able to buy in the early or mid-1980s have seen the price of our homes—which we thought were overpriced then—more than double. Still, I wish we could go back to the way things were a few years ago. We now have $750,000 homes going up on lots where you can look into your neighbor's yard. There's a 2,174-name waiting list at the train station for a parking space. And believe it or not, we are beginning to have traffic jams—especially on Sundays when New Yorkers are out for a drive.

Is it too late to take us off the list?

—*Paul B. Brown*



'THE MOST ENTREPRENEURIAL PLACE ON EARTH'

What it's like to build a business in East Cambridge, Mass.

BY LIZ ROMAN GALLESE

I think you get hooked on the adrenaline. And terror is part of what makes the adrenaline flow."

The speaker is C. David Seuss, chief executive officer of Spinnaker Software Corp., a producer of inexpensive office and education programs for personal computers. Adrenaline? Terror? Founded in 1982, Spinnaker blossomed through 1984, contracted by more than half, expanded again this year. All of which is normal for any ambitious fledgling except for one factor: the company is based in East Cambridge, Mass., a tiny neighborhood that is perhaps the most entrepreneurial place on earth. And that, say the people who build businesses there, makes the highs higher—and the lows more devastating.

Bordered by the Massachusetts Institute of Technology, just across the Charles River from Boston, East Cambridge covers less than a square mile. A decade ago it was a wasteland, its streets crowded with gargantuan old factories, some still reeking of the soap once manufactured there. The industrial canal on the neighborhood's northwest corner was a storage area for highway salt.

Today those same streets are brushed clean and lined with sidewalk cafés and trendy shops, many of them renovated to look smartly old-fashioned; the canal has become a focal point for a polished new office-and-condo development. But the change may be even more dramatic behind the facades.

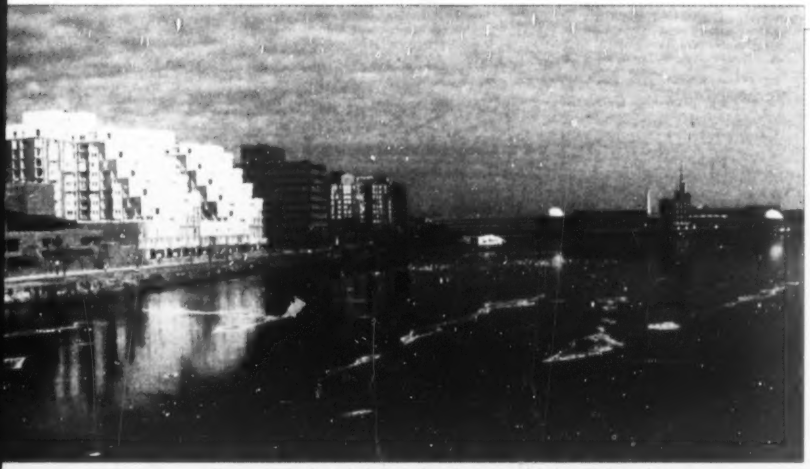
- ■ Roughly 10% of Massachusetts's software companies make their home in East Cambridge. Nearly one-quarter of the state's 140 biotechnology companies do too. In all, says David L. Birch of Cognetics Inc., some 17,000 new jobs have been created in East Cambridge over the past eight years.
- ■ Roughly 3.5 million square feet of new office space have been added to a base of 2.2 million square feet over that same eight-year period, according to the real-estate firm of Spaulding & Slye. Metropolitan Boston may be suffering from cutbacks in the defense and computer industries. East Cambridge has scarcely noticed.
- ■ At the American Twine Office Park, in the middle of East Cambridge, developers had expected to lure law firms attracted by the nearby courthouse and big companies desperate for presentable office space. What they got instead were tiny businesses such as Inscribe Inc. (which computerized Ronald Reagan's signature) and Funk Software Inc. (which turned the unwieldy Lotus 1-2-3 spreadsheet right side up).

"The building wasn't intended to be a high-tech incubator," says Mitchell Roberts, marketing and leasing manager for the developers. "That came as a surprise." Some 50 to 60 young companies have been based at American Twine since it opened in 1983.

And what is it like for an entrepreneur to do business in a place so jam-packed with compatriots? At Spinnaker, what Seuss calls the adrenaline and the terror coexist with more pedestrian factors. Spinnaker's proximity to MIT makes it easy to recruit programmers, and to take advantage of the pool of students seeking part-time work. The company has also been able to expand and contract without difficulty; with so many fast-growing companies looking for space, says Seuss, you can sublet yours when you're on a downward spiral and rent someone else's when you begin growing again.

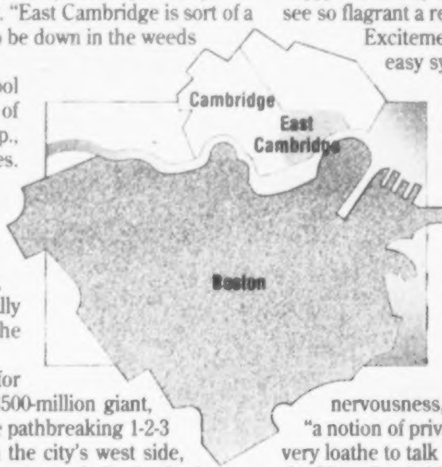
Then there's the onslaught of professional-service firms: Big Eight accountants; slick public-relations outfits; tony consultants like Alliance Consulting Group, spun off from Boston Consulting

INC. METRO REPORT



Once an industrial wasteland, now a high-tech incubator

Group—even a day-care center, Bright Horizons. All offer help, albeit at a price. "That phone will ring, and you'll have no idea what question will come over the line," says Joseph S. Tibbetts Jr., the Price Waterhouse partner who founded the firm's Entrepreneurial Service Center three years ago. "A guy will say, 'I want to fire my chief financial officer—how do I do it?' " Robert Johnson, a venture capitalist, launched Founders Capital Partners two years ago to bridge the gap between good idea and start-up; he helps entrepreneurial hopefuls get their acts together. "East Cambridge is sort of a primordial soup," he says. "You have to be down in the weeds to catch something new."



The company that stands as a symbol of all this—a focus of envy as much as of admiration—is Lotus Development Corp., which in 1981 had but three employees. Two years later, when it shipped the software package that changed the way American business did its numbers, Lotus became the ultimate all-American success story. "You know, tremendously quick success, with a really good product,' says Janet Axelrod, the company's first hired employee.

Axelrod was in part responsible for bringing the company, now a nearly $500-million giant, to East Cambridge. Having shipped the pathbreaking 1-2-3 program from its old headquarters on the city's west side, Lotus had to grow more rapidly than expected. So Axelrod found a decaying glue factory on First Street in East Cambridge.

That decision, along with the closeness of MIT, has made the area what it is today. Lotus's eight East Cambridge locations constitute a campus of sorts, connected by a line of ubiquitous white vans with the company's name prominently displayed on their sides. And Lotus, some say, provides the inspiration for the area's other entrepreneurs. "You can't look up to IBM and say, 'I'm going to get there some day,' " says Noubar B. Afeyan, 27, founder and executive vice-president of Perseptive Biosystems Inc. "But Lotus—that isn't so far away." Indirectly, Lotus even symbolizes the downside of entrepreneurship: founder Mitchell Kapor left Lotus in 1986 for another start-up, this one called ON Technology. And since ON hasn't yet lived up to expectations, Kapor is now in the same maybe-we-won't-make-it boat as everyone else.

Indeed, failure may be the real terror of doing business in an environment so crammed with hopefuls. At The Office, a facility where the newest entrepreneurs can rent a room or two with a desk and phone, 25% of the tenants don't survive. Neither do a lot of better-established companies. When Afeyan moved into new quarters on the edge of East Cambridge, the first thing he stumbled on were the business cards of the former tenant, a company that had gone under. For Charles Digate, a former Lotus senior vice-president now launching a software company called Beyond Inc., seeing the tenant across the hall fold was a moment of truth. "I was happy when they took the name off the door," he says, unwilling to see so flagrant a reminder of failure.

Excitement and fear—adrenaline and terror—exist in uneasy symbiosis. At the headquarters of booming Interleaf Inc., CEO David Boucher points admiringly to the spiral staircase winding like a spine through the center of the facility. The building, Boucher explains, "fosters a sense of oneness—that we're all in this together." Other entrepreneurs in the area echo Boucher's sentiments. Asked about doing business in such an environment, they talk about the easy flow of ideas from campus to company, about the sharing of ideas and facilities among start-ups, even those in the same industry.

But the ever-present specter of failure appears to have produced exactly the opposite effect: a nervousness, a recoiling from one another. Digate, in fact, says "a notion of privacy" is really what pervades the area. "People are very loathe to talk about what they are doing. I think that's part of the [East Cambridge] mystique. People know there's so much going on, and they don't know what it is. There's this underlying anticipation that some day, somebody will come up with something brand-new."

As East Cambridge matures, many believe that rising rents will put an end to the freewheeling entrepreneurial culture. But as Spinnaker's Seuss says, more than a few company founders may already be hooked. Late last spring I talked with The Saddlebrook Corp.'s founder, Mike Kinkead, in his spectacular office, the Charles River a sparkling ribbon of blue under the Boston skyline. At the end of June Kinkead was out, fired by the company's venture capitalists. A month later the business itself was padlocked.

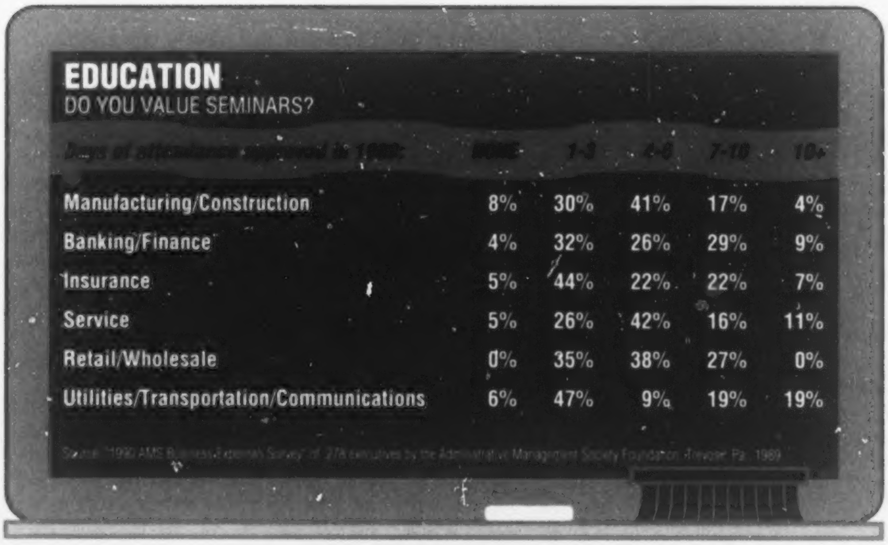
Launching a new company right away, Kinkead found space fast in suburban Wellesley. But he dreams of finding space in the environment he knows best.

"There's real magic in East Cambridge," says Kinkead. ❑

Liz Roman Gallese is a free-lance writer based in Wellesley, Mass.

HANDS ON

A Manager's Notebook



EDUCATION

DO YOU VALUE SEMINARS?

Days of attendance approved in 1989:	NONE	1-3	4-6	7-10	10+
Manufacturing/Construction	8%	30%	41%	17%	4%
Banking/Finance	4%	32%	26%	29%	9%
Insurance	5%	44%	22%	22%	7%
Service	5%	26%	42%	16%	11%
Retail/Wholesale	0%	35%	38%	27%	0%
Utilities/Transportation/Communications	6%	47%	9%	19%	19%

Source: "1990 AMS Business Expenses Survey" of 278 executives by the Administrative Management Society Foundation, Trevose, Pa., 1989

TRAINING

THE SHOP FLOOR

What's the best way to break in a new executive? Put him to work on the shop floor. If you ask Henry Nasella, he'll tell you few experiences can match it for letting a manager see the company's problems firsthand.

Nasella had been a supermarket executive for two decades when he became president of Staples Inc., a $200-million chain of 40 discount office-supply stores with headquarters in Newton, Mass. He knew nothing about the office-supply business, so he spent a couple of weeks of his first month on the floor of one store, unloading delivery trucks, stocking shelves, and working the cash registers.

"I got a good handle on what we did well and didn't do well," says Nasella. "The things we didn't do well came through loud and clear."

When he took over operating responsibility a week later, Nasella was up to speed on how the business worked—a process, he says, that would have taken many months if he had stayed in the office. ❑

EMPLOYEE RELATIONS

DO THE RIGHT THING

The birth of Bread Loaf Construction Co.'s Employee of the Month program was certainly inauspicious. Leo Breshnahan, a field worker, had approached executive vice-president John Leehman at the company's annual meeting for its 160 employees and complained: "We do all the work out in the field, while people in the office are just having a good time."

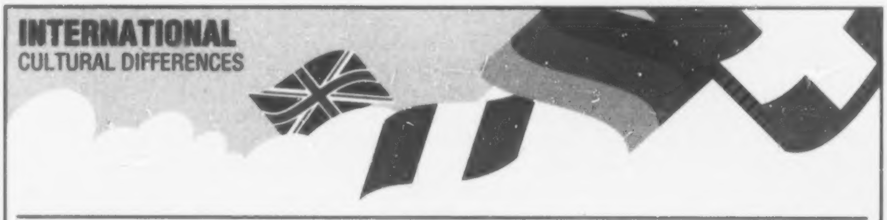
Leehman invited Breshnahan to spend the day seeing how the office crew earns a living. "It was a real turning point for Breshnahan," says Leehman. "He knows where he can go in the system, and so do other employees who have followed in his footsteps."

Now, every month an employee is chosen to tour Bread Loaf's offices and construction sites to get a sense of just what other people do in the corporation.

What's more, spending a day with the star employee gives managers of the Middlebury, Vt., business a chance to get acquainted with the best management candidates in the company. ❑

INTERNATIONAL

CULTURAL DIFFERENCES



What sales skills do your sales representatives lack?	United Kingdom	France	West Germany	Switzerland
Understanding client needs	53%	12%	52%	56%
Listening skills	27%	10%	20%	21%
Persistence/patience/tact	16%	18%	23%	19%

Source: Survey of 1,157 executives in Europe conducted by National Opinion Research Ltd. for Learning International, Stamford, Conn., 1989

BANKING

MAXING OUT

Michael Regan, president of Tranzact Systems, a Chicago-area freight payments service, couldn't figure out why his application for a modest small-business loan kept getting turned down. Then a venture capitalist told him, "Mike, processing a $250,000 credit line and a $750,000 long-term note costs as much as a loan for twice that. Why not make it worth the bank's while?" So, Regan rewrote his application and presto! It was approved.

"If your cash flow can justify it," advises Regan, "make the bank a profitable offer." ❑

MEETINGS

DRY RUN

Mike Allred, CEO and president of Visual Information Technologies Inc., a Dallas graphics-imaging company, wanted to stop employee gossip about his monthly board meetings, so he decided to hold dry runs of the meetings with his staff of 90.

"It goes over like gangbusters," says Allred. "Delivering the same spiel we give the board shows we respect employees' participation." Employees ask tough questions, which gears management up for the real McCoy the next day. ❑

CHARTS: ELLIOT BERGMAN

HANDS ON

COMMUNICATIONS

WHAT IS IT THAT YOU DO?

Cross-training is a time-tested method of preparing employees to do more than one job. But Jim Baka, president of CERAC, a specialty chemical manufacturer in Milwaukee, uses it to communicate.

"Several years ago, we started involving production managers in day-to-day sales and marketing decisions by having them sit in on meetings. We also sent them to trade shows. Our goal was to make sure they understood the way the work they do fits into our complete business operation and long-term goals," says Baka.

Baka doesn't think it's too costly to teach employees skills they won't be using over the long term. "If I send my production plant manager to a two-day trade show, he'll come away understanding more about our customers and the need for meeting quality and scheduling goals than he could ever learn from me just talking at him."

Bottom-line results at the 120-employee company support Baka's theories: "Thanks to cross-training, we've been able to push sales up 15% to 20% per year, while maintaining a high quality of product, delivery performance, and technical customer assistance." ❑

COMPENSATION

KEEPING THEM DOWN ON THE FARM

How do you keep your best salespeople from leaving to work for somebody else? Or get an independent rep to pay more attention to your line?

The answer, says Jeffrey S. Adler, is "silver handcuffs"—a deferred bonus plan. Adler, a vice-president of the Insurance Services Division of Mesirow Financial, a Chicago-based financial services firm, explains how it could work:

You set a specific goal this year for your salesperson, who is generating, say, $100,000 in sales annually. You tell him for each year his sales top $110,000, he'll get a bonus of $2,500—but the bonus is only payable after he has stayed with the firm seven years. If the salesperson hits his quota each year during that time, the company will pay out a $17,500 bonus in 1997. If the rep leaves before that, the company would keep the money. ❑

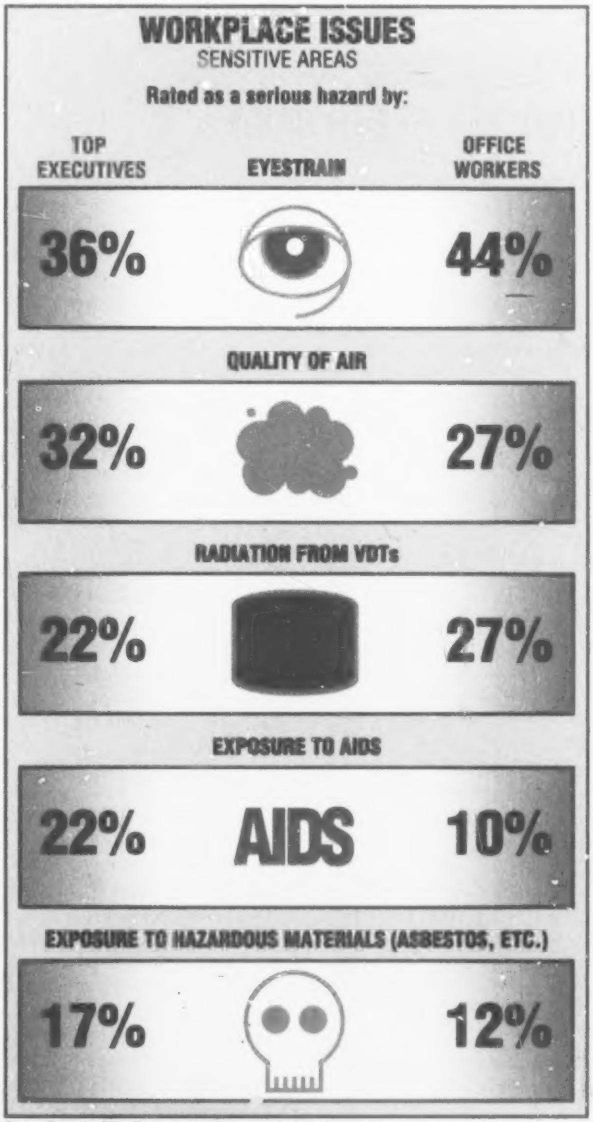
MANAGING PEOPLE

MONEY IS NO OBJECT

Lou Pearlman, founder and CEO of Airship International Ltd., in New York City, had a problem. Eight of his company's 42 employees were living on the road eight months out of each year to operate the two blimps the company leases. And they were growing weary.

Pearlman offered them raises and bonuses, but family, not income, was the issue. So he proposed spending any raises and bonuses normally incurred over the next two years on extra personnel, so employees' travel time would be cut in half. The managers agreed to a 20-month salary freeze, which Pearlman estimates paid for the cost of hiring the new managers.

"Knowing they can get back to a normal, day-to-day life," says Pearlman, "everyone is more eager to do the things they set out to do." ❑



Source: From the "Office Environment Index" survey of 1,041 office workers and 150 top executives, Steelcase Inc., Grand Rapids, 1989

CUSTOMER RELATIONS

CUSTOMER SATISFACTION

Your line employees could be some of the best salespeople you have. After all, who knows the product better than the folks who make it?

When J. W. Kisling, CEO of $26-million Multiplex Co., in Ballwin, Mo., gives tours of the beverage dispenser manufacturing facility, he stops by a workstation and asks one of the company's 120 factory employees, "How about explaining to us what you're working on?"

Why? "It impresses a customer to see our employees are able to explain what's going on around them. Everybody's a salesman here." It's difficult to measure how much business this tack brings in, but with customer comments like "These guys really know what they are doing," Kisling's sure it hasn't hurt revenues one iota. ❑

(HANDS ON continued)

HANDS ON

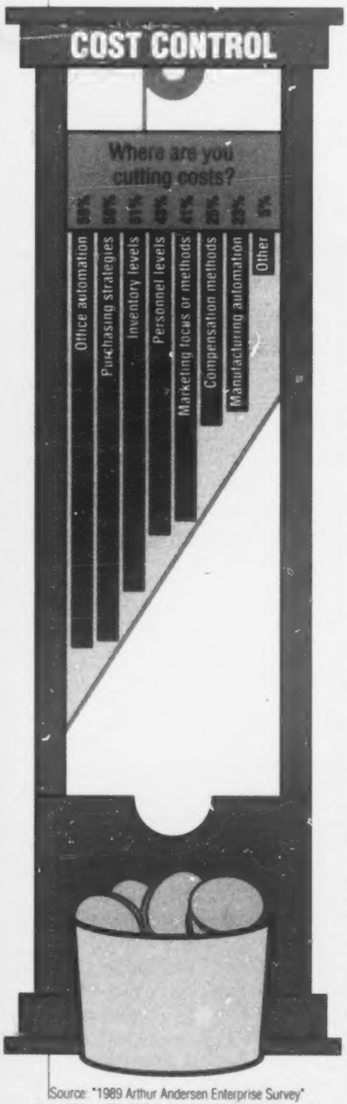
ENVIRONMENT

POPPED FRESH DAILY

Teresa Harrison faced a dilemma. She wanted to assure customers of SET Laboratories Inc. that its packages of software and manuals could be shipped undamaged. But she also wanted to be kind to the environment by not using polystyrene peanuts for packaging.

Her solution? Popcorn—which, it turns out, is not only an effective substitute for polystyrene but, aside from the investment of an air popper, costs about 60% less, even if you don't purchase the popcorn in bulk.

The only glitch in using popcorn is that the packaged goods must be enclosed in envelopes, or they will absorb the popcorn smell. Harrison, who founded SET Laboratories in Portland, Ore., three years ago, includes a note explaining the switch and pointing out that, while it is popped fresh daily, the packing material is not intended for human consumption. ❑



Source: "1989 Arthur Andersen Enterprise Survey" of more than 4,500 CEOs of companies with sales ranging from $1 million to $120 million, Chicago

MARKETING

SPECIAL DELIVERY

The next time you mail a letter or package, Barry Fribush wants you to remember that postal workers are customers, too. From the time your local post office picks up your letter to the time it's delivered, many different employees will handle, sort, and bundle your letter. As long as all those people have to look at your envelope to figure out where it should go, Fribush reasons, why not try to sell them something?

Fribush, founder of Bubbling Bath Spa & Tub Works Inc., in Rockville, Md., does just that. On each envelope he mails you'll find this message: "Mr. Postman: Thank you for delivering this valuable letter from The Bubbling Bath . . . at the end of the day you should relax in a Jacuzzi"—which Bubbling Bath just happens to sell.

"We started doing this because I thought the idea was cute," says Fribush, "but we have sold a couple of spas to postmen." ❑

ON THE CHEAP

WHEN CHEAPER VIDEO DISPLAYS ARE BETTER

By Cary Lu

Among the flashiest components bombarding buyers of IBM PCs or compatibles these days are color video graphics array (VGA) monitors and their supporting boards. But VGA doesn't come cheaply. A VGA board lists at $250 to $500 and even a fuzzy color monitor costs $350; a good one runs more than $600, list price. That's in addition to the computer. On some high-end computers, you have no alternative; VGA is built into the machine.

But for all reasonably priced computers, the cheapest display may well be the best. Hercules Computer Technology Inc.'s graphics standard, dating from the early days of the IBM PC, still competes well with the likes of VGA. Its image quality is decent (it has 720 by 348 pixels on screen, versus VGA's 640 by 480) and any competent monochrome monitor will always produce sharper images than any color monitor. Certainly the price is right: Hercules-compatible video cards sell for as little as $50 and good monochrome monitors run $80 to $100. Virtually all MS-DOS business software is compatible with Hercules video, including the latest programs that run under Microsoft Windows. Only a few specialized graphic arts programs truly require color.

The only problem with Hercules video is that OS/2 and Presentation Manager, the new operating system from Microsoft and IBM, do not support Hercules monochrome video and may never support it. Right now this is a moot point, since few people use OS/2, partly because the software choices are limited and partly because the hardware necessary to run OS/2 is expensive.

If you never change to OS/2, you will save a lot of money with Hercules video. But even if you do switch, a Hercules video card cost so little that you can afford to buy it now and discard it later. In fact, in a year or two, you can leapfrog VGA, moving to an even better standard, such as Super VGA (800 by 600 pixels) or 8514 (1,024 by 768 pixels). ❑

MERGERS AND ACQUISITIONS

TRICKS OF THE TRADE

If you're looking to buy or sell a company, how can you screen prospective advisers? Jeff Scheinrock, formerly a senior partner with Arthur Young & Co. who specialized in mergers and acquisitions, suggests asking references for the names of deals that fell through. "If an adviser won't turn them over to you, you're better off looking elsewhere."

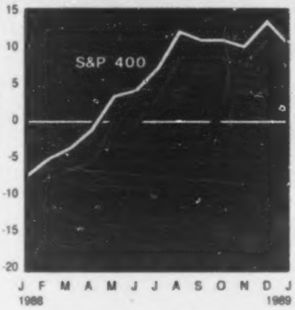
Says Scheinrock, who is president of Strolee Inc., a Woodland Hills, Calif., manufacturer of baby products: "Seventy percent of deals fall through. If an adviser doesn't come through with a couple of deals that went sour, or acts as if he's only had successful deals, it's a signal that something's amiss.

"Deals don't go through for a variety of reasons, one of which could be the adviser," says Scheinrock. "You want someone who's secure enough to let you see both sides of their work." ❑

Reported by Teri Lammers, Paul B. Brown, Jill Fraser, Steven D. Solomon, and Tait Wardlaw

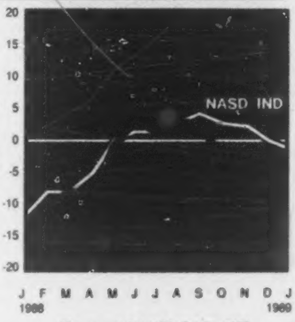
INVESTING IN GROWTH COMPANIES

INC. vs. CONSERVATIVE AVERAGES



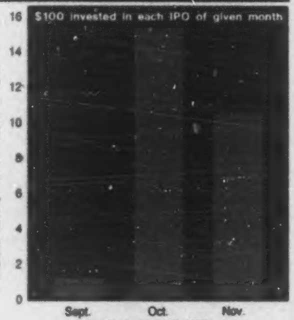
All averages start at 0 in October 1987.

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987.

IPOs IN THE AFTERMARKET



To January 15, 1990

INITIAL PUBLIC OFFERINGS: DECEMBER 1989

O-T-C sym.	Company	Business/product	Offering Size ($ mil.)	Offering Price	First aftermarket bid	Underwriter
ACRCA	**American Capital & Research**	Provides environmental services	30.7	8.50	8½	Shearson
ARK[a]	**Arkla Exploration**	Produces natural gas	109	20.75	21½	Morgan Stanley
BTZ[a]	**Berlitz International**	Provides language instruction	139	16.50	15⅞	Goldman Sachs
BORL	**Borland International**	Mfrs. software	22.52	10.00	10	Goldman Sachs
CALLA	**Cellular Information**	Mfrs. cellular telephone systs.	30.4	10.75	10¾	Smith Barney
XUPS	**Exide Electronics**	Mfrs. power supply products	19.25	12.50	12⅝	Alex. Brown
FBR[a]	**First Brands**	Mfrs. private-label consumer products	123	19.00	18⅞	First Boston
GI[a]	**Giant Industries**	Produces oil	37.6	13.50	13½	Shearson
GSBC	**Great Southern S&L**	Thrift institution	7.3	9.00	9	Merrill Lynch
GIII	**G-III Apparel Group**	Designs leather apparel	26	13.00	13½	Oppenheimer
HNSI	**Home Nutritional**	Provides home infusion therapy	66	16.50	16½	Smith Barney
KMCI	**Keegan Management**	Operates weight loss centers	8.75	7.00	9⅜	H. J. Meyer
LRSIU	**Laser Recording Systems**	Mfrs. optical disks	2	5.00[b]	5⅛	Culverwell
MUSA	**Martech USA**	Provides pollution control svcs.	14	10.00	9¾	Paine Webber
MGG[a]	**MGM Grand**	Operates airline & casino	37.5	15.00	15	Bear Stearns
MFRI	**Midwesco Filter Resources**	Mfrs. air filter bags	5.64	8.00	7¾	Chicago Corp.
MIPS	**MIPS Computer Systems**	Supplies RISC technology for computer systs.	63	17.50	19	Morgan Stanley
NMA[a]	**Nuveen Municipal Advantage**	Closed-end fund	525	15.00	15	Alex. Brown
PMTC	**Parametric Technology**	Develops computer software	20.4	12.00	17¼	Alex. Brown
PDT[a]	**Patriot Premium Dividend Fund II**	Closed-end fund	156	12.00	12	Salomon Bros.
PLG[a]	**PolyGram**	Music production	512	16.00	16¼	Prudential-Bache
RHMO	**Ramsay-HMO**	Operates HMO	21.75	10.00	10	Robertson Colman
RMITU	**Remittance Technology**	Mfrs. check remittance equipment	3.5	5.00[b]	5⅛	J. W. Gant
SSPW	**Sun Sportswear**	Designs & sells T-shirts	17.85	10.50	10½	Salomon Bros.
TKF[a]	**Turkish Investment Fund**	Closed-end fund	84	12.00	12	Salomon Bros.
VFRTU	**Vitafort International**	Mfrs. health-food mixtures	3.6	6.00[c]	7⅛	Gilford
WGR[a]	**Western Gas Resources**	Produces natural gas	37.3	11.50	11⅝	Prudential-Bache

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on NYSE; [b] units of 4 common + 2 warrants; [c] units of 3 common + 2 warrants. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York, NY 10038.

MEDIA POWER

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MARCH 1990 VOL. 12 NO. 3

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THE MAGAZINE FOR GROWING COMPANIES

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Getting Your Company in Shape for Buyers
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THE NEW AMERICAN DREAM

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THE ANATOMY OF A START-UP
Is Even $100 Million Enough to Get an All-Sports Daily off the Ground?
SEE PAGE 58

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COVER PHOTOGRAPH
by
Rob Kinmonth

DO YOU SEE WHAT I SEE?

The heads of America's fastest-growing companies tell: what they watch to alert themselves to changes in the economy; what those signs are telling them now; and what they're doing about it inside their own businesses

BY JAY FINEGAN

While economists announce an official recession whenever the U.S. gross national product declines for two consecutive quarters, the men and women running fast-growth companies across the country have their own distinct and personal notions of what makes for a recession. John Bell says it's when worries about his direct-marketing business give him fitful sleep. To Soni Christensen, a recession means she might lose her new $500,000 design studio. California plastics manufacturer William Czapar is more direct. "A recession," he declares, "is when it hits your profit and loss, no matter what the rest of the economy is doing."

To be sure, this INC. survey on the economic outlook turned up the usual suspects when folks were asked to name signposts that might signal trouble ahead—high interest rates, unemployment rates, inflation, the stock market, even the number of help-wanted ads in local newspapers. But for Clarence E. Harris of Calhoun, Ga., a leading economic indicator is "gossip at the post office." Is Harris the kind of character you'd see on reruns of "The Andy Griffith Show," an entrepreneurial Barney Fife? Not quite. His Carriage Industries Inc. employs 1,000 workers and posted sales last year of $103 million.

Who's to say that the guys hanging around the Calhoun post office know any less than Alan Greenspan, chairman of the Federal Reserve System? His take on the economy comes from sheets of bloodless statistics, and numbers don't always tell the whole story. "You can feel a recession coming in your gut," remarks one company owner. "It's like a deer sensing the presence of a wolf that it can't yet see."

Differences within a region

What is striking, when one speaks with the survey respondents, is the divergence of economic outlooks among people in the same region, and sometimes even within the same industry. For depending on one's niche, a recession can be either a curse or a blessing in disguise. Take the Northeast, for example, which is already beginning to feel the effects of the rolling recession that wracked Texas, and before that the Rustbelt. It now is suffering the hangover of an exuberant binge.

Soni Christensen is president of Design East Interiors, in Concord, N.H. The company furnishes and equips model homes, lobbies, nursing homes, and the like. In 1988, when Design East made the INC. 500 list, it had about 90 active models in its client base, and revenues reached $1.7 million. New Hampshire was hot. Then, very quickly, the bottom fell out of the New England housing market. The government's repeal of the investment tax credit did some of the damage, but mainly the supply of new housing simply outstripped demand. One of Christensen's projects was a condominium complex with 120 units; only 12 were sold.

Christensen had expected to have at least 20 employees by now. Instead, her staff peaked at 16 early in 1988 and has since been trimmed to 4. "This is the first time since I opened my doors in 1982 that I am going backward, not forward, in huge leaps," she says. "Sales are off by nearly 50% from our peak. I'm telling my people, 'Guess what? Be glad you have jobs. So don't be asking me for a raise, and don't pick up the phone and make a long-distance call, either.' My truck is worn out, but I'm not buying a new truck. Our van is worn out, too, and I'm not buying a new van. I'm not even buying clothes, and my daughter can't go on her ski trip."

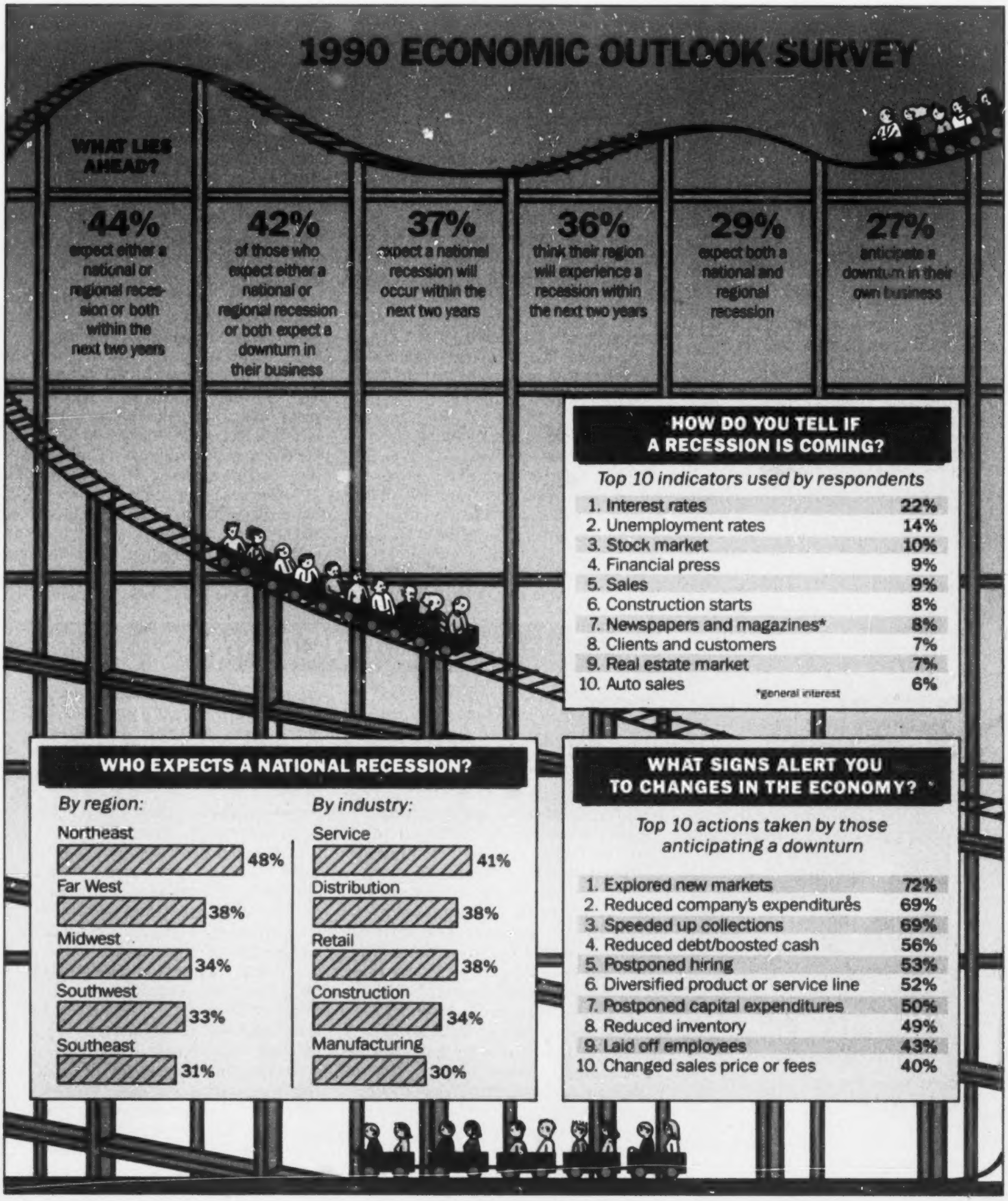
Now consider the case of Mel Borrin. His New Hampshire real-estate firm, Preferred Properties Inc., sits on the shores of Lake Winnipesaukee, a scenic recreation area less than an hour north of Concord. Borrin specializes in the vacation-home market. Most of his buyers come from Massachusetts, New York, Rhode Island, and Connecticut.

Last year Borrin sold $22 million worth of real estate. This year, based on the volume of inquiries, he expects sales worth $30 million or more. "The volatility of the stock market has played right into our hands," he says. "People have seen too many collapses. They see that stability isn't in the market, it's in real estate. There's a lot of pent-up demand out

◆ HOW THE SURVEY WAS CONDUCTED ◆

In late December 1989 we sent a two-page questionnaire to the 3,072 companies that have ever appeared on either the INC. 500 or the INC. 100, as well as to another 720 growth companies. We received a total of 960 responses—a response rate of 26%. Survey results were tabulated by Harrison & Goldberg, in Cambridge, Mass.

The survey was conducted under the direction of special projects editor Sara Baer-Sinnott. Additional research was provided by reporter Anne Murphy.



1990 ECONOMIC OUTLOOK SURVEY

WHAT LIES AHEAD?

44% expect either a national or regional recession or both within the next two years

42% of those who expect either a national or regional recession or both expect a downturn in their business

37% expect a national recession will occur within the next two years

36% think their region will experience a recession within the next two years

29% expect both a national and regional recession

27% anticipate a downturn in their own business

HOW DO YOU TELL IF A RECESSION IS COMING?

Top 10 indicators used by respondents

1. Interest rates	22%
2. Unemployment rates	14%
3. Stock market	10%
4. Financial press	9%
5. Sales	9%
6. Construction starts	8%
7. Newspapers and magazines*	8%
8. Clients and customers	7%
9. Real estate market	7%
10. Auto sales	6%

*general interest

WHO EXPECTS A NATIONAL RECESSION?

By region:

Northeast	48%
Far West	38%
Midwest	34%
Southwest	33%
Southeast	31%

By industry:

Service	41%
Distribution	38%
Retail	38%
Construction	34%
Manufacturing	30%

WHAT SIGNS ALERT YOU TO CHANGES IN THE ECONOMY?

Top 10 actions taken by those anticipating a downturn

1. Explored new markets	72%
2. Reduced company's expenditures	69%
3. Speeded up collections	69%
4. Reduced debt/boosted cash	56%
5. Postponed hiring	53%
6. Diversified product or service line	52%
7. Postponed capital expenditures	50%
8. Reduced inventory	49%
9. Laid off employees	43%
10. Changed sales price or fees	40%

there, and I think people have decided that now is the time to buy. Prices are more realistic. So I think we are in one hell of a great year."

Patricia Gallup, president of PC Connection Inc., in Marlow, N.H., feels the region's problems only indirectly. The $100-million mail-order retailer of computer peripherals and microcomputer enhancements is coming through the state's doldrums in fine style. But there is one problem, and that, too, has to do with the depressed New England real-estate market. "We used to attract employees from Boston and other urban areas in New England who wanted to live in a rural environment," says Gallup. "Now, those people are less likely to relocate because they're having trouble selling their homes." That's left Gallup with at least 30 vacant positions.

John Bell, the man for whom recession equals insomnia, is less sanguine. His com-

CHARTS: STAN KAY

T. J. Rodgers
Founder and CEO
Cypress Semiconductor Corp.
San Jose, Calif.

National recession: Perhaps
Regional recession: Irrelevant to business because serve international/national markets
Indicators: Book-to-bill ratio; sales forecasts; customer inventory
Strategic response: Added only 44 employees to a base of 1,350 last quarter; held capital expenditures to $4 million on a base of $160 million
Comments: "The way we run the company and think about planning presumes we are always in a state of siege. We're always prepared for the worst."

Jerry Sigal
Chairman
SIGAL Construction Corp.
Washington, D.C.
#1 INC. 500 (1983)

National recession: Absolutely
Regional recession: No
Indicators: S&L crisis; vacancy rates; lack of architectural business, new building design
Strategic response: Held general and administrative overhead flat for past three years; eliminated all debt
Comments: "I used to be a high flier, but I've become conservative. When you don't have anything you can afford to be a high flier, but when you have something to protect, you can't."

pany, Creative Professional Services Inc., had sales of $5.5 million last year. Its 45 full-time and 55 part-time employees handle business-to-business direct-mail marketing from their offices in Woburn, Mass., on Route 128—the high-tech corridor that not long ago was synonymous with fabulous growth. Bell's problem is not that business is down. If anything, it is up. No, Bell's problem is getting paid.

"We have had to install a program to speed up collections, because receivables are running from bad to terrible," Bell says. "That's true even with the best of payers, I might add. Everyone is trying to delay their payments, so nobody gets paid and we all go down together. I talk to a lot of CEOs of companies my size in this neck of the woods, and a lot of us are having trouble getting sleep these nights."

How companies are responding

Telephone interviews with scores of fast-growth company executives across the United States reveal that many believe they enjoy a special edge, some advantage, that will protect them no matter what the economy does.

Donald Eberly of Sacramento, Calif., is a businessman who sees a recession coming but is confident he'll emerge unscathed. His $11-million company, Qualimetrics Inc., manufactures, installs, and maintains meteorological sensors and systems for airports. "This is an area that is going to grow regardless of the short-term economy," says Eberly. "The modernization of airports is going to happen." The company now exports 28% of its volume, but what excites Eberly are his prospects in Eastern Europe, where airports now rely on antiquated Soviet-made equipment. He expects to land two major contracts shortly, probably in Bulgaria and Czechoslovakia.

It would be hard to find companies better positioned to avoid serious downturns than those doing environmental cleanups, since recent legislation has mandated what amounts to a national crusade. "We see ups and downs in our business on regional and yearly bases," says David Musser, of Enreco Inc., "but that seems to have less to do with the economy than with the regulatory pressures that are applied at the time." Musser's $13-million company, in Amarillo, Tex., solidifies noxious sludges in industrial pits, ponds, and lagoons.

Not that Musser ignores the specter of a recession. Like many companies that hope to remain buoyant in a downturn, Enreco is

I LOVE A RECESSION!

Jack Hasbrouck launched The Groundskeeper in Tucson in 1976 and, under the name Environmental Earthscapes Inc., made the INC. 500 in 1983. But it wasn't until the Arizona economy hit the skids that the $7.9-million landscaping, maintenance, and construction firm started doing more municipal landscaping. With local jurisdictions turning to private companies for services, Environmental Earthscapes's 300 employees are constructing and maintaining public picnic areas, baseball and soccer fields, and parks, as well as landscaping a tremendous freeway expansion in Phoenix. "We're increasing our sales by 30% or more right in the midst of this recession," Hasbrouck says.

In Portland, Ore., meanwhile, down looks like up to Beau Bradley. He thinks Sonitrol Pacific, his $2.5-million company, stands to profit handsomely from the slowdown he sees ahead for the Pacific Northwest. Sonitrol installs and monitors state-of-the-art alarm systems, mostly for businesses. "Some of our best growth came in the early '80s," Bradley says. Recession will bring a corresponding rise in crime, he notes—particularly burglaries. "We're projecting 30% growth."

Thrifty Auto Supply Inc., another Portland company, also hopes to thrive on adversity. "The after-market auto-parts business has been called recession-proof," says president Steven J. Hopkins, whose five stores make Thrifty the biggest independent auto-parts chain in the city. "When people can't afford new cars, they fix up their old ones. The average age of a car on the road today is more than seven years. So people are already replacing bigger-ticket items—engines, front ends."

Larry Daniel also looks on recessions with a hopeful eye. The Daniel Company of Springfield, in Springfield, Mo., has a fleet of 35 tractor-trailers that operate as common carriers or on contract. "During a recession, more freight moves by truck than by rail, because businesses wait until the last minute to buy something, and then they want it immediately," he says. "People shorten their inventories and don't buy anything until they need it." A recession and higher unemployment will also ease Daniel's recruiting problems. "We now have about 52 drivers," he says, "and we need about 85."

Investment counselor Eugene Caldwell is equally optimistic. A principal at Atlanta's Caldwell & Orkin Inc., he predicts at least one negative quarter for both the national and regional economy. "I have 42 years of experience in this field," he says. "I have been through every postwar recession. And by and large, in recessions people turn to investment advisers. So we are likely to gain clients rather than lose them."

debt free. "We are fairly conservative and will continue to be," Musser says. "I want to have staying power. Should there be an industry shakeout, we're in good shape to weather several years of a very poor business climate. I think the economy is skating on thin ice, and if we break through, it could be messy."

For other businesses, unfortunately, the mess is already fast upon them. With sales flat or falling, with markets shrinking, they are moving aggressively to control damage. A search for new markets is at the top of the list. A scramble to speed up collections is another pronounced trend; so is reducing expenditures and debt. Those who still shudder at memories of the early-1980s recession, and the 21% prime rate, are the most concerned. "We desperately need to get into a larger facility, but we're holding off," says Gene Forte, president of Forte Industrial Equipment Systems Inc., a Cincinnati provider of automated conveyors. "Two years ago we were going to move into a new building—a two-story, high-tech building. We were supposed to break ground, but I backed off. I paid $8,000 to get out of it. I had more new people than old, we were growing like crazy, but I just didn't want to take on the debt."

Some companies are making changes that go straight to the bottom line. "We have eliminated travel and entertainment," says Sal Salvatierra, president of C&S Data Solutions Inc., a technical-services firm in Marlboro, N.J.

Others are scaling back sales forecasts and shelving, or at least slowing, plans for growth. "Our business is expanding from 16 to 50 stores this year," says Sonny Cray, whose Philly's Finest restaurant chain is headquartered in Tucson. "If the economy were different I'd be saying 100 locations." Doug Pearson's NSS Corp. is a systems-integration business in Bedford, N.H. He had hoped to move on a second piece of property this year. Instead, he's concentrating on paying down a home-equity loan.

Otto W. Voit III is also putting expansion on the sidelines. Voit is vice-president and chief financial officer of Educational & Fun Ltd., a Reading, Pa., retailer of educational toys and products. The company made the INC. 500 in 1989, but Voit is taking a cautious approach. "We were hoping to open new stores this year," he says. "We had plans to open two, then we scaled it back to one, and put it off for two quarters."

Up in Portland, Maine, Thomas Rand is taking advantage of the downturn to get back to basics. His Management Research Group, a consulting firm providing training and development products and services, grew more than 900% last year. "This company has seen tremendous growth in the past several years," Rand says. "In the past six months that curve has leveled off in the Northeast, and in the past two months it has turned downward. We have close relations with our northeastern clients, and the downturn has hit them and hit them quickly, especially in financial services. So 1990 is going to be a tough year.

"But the downturn has given us a breather," Rand goes on. "The growth of the company has been so rapid that we had not done much product development. It's time to get back to that. We had also become something less than efficient in the way we managed expenses. So we're now looking at that more carefully."

The chill of recession is forcing some companies to reach into less troubled locales and industries. Some of the most worried are companies that rely heavily on defense spending. The more prescient companies long ago began shifting to a more dependable business base.

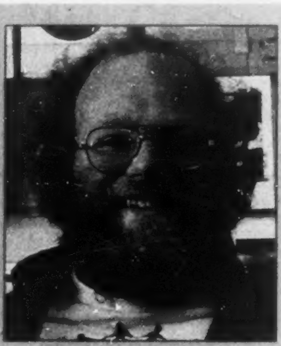
Gary Fitzmartin's $10-million Office Furniture Specialists Inc. is typical of this group. Fitzmartin operates in two southern California locations, Long Beach and San Diego, a kind of ground zero of the potential military mayhem. "The southern California marketplace has extremely close ties to military spending," he says. "With peace breaking out all over and the deficit what it is, it'll affect this market and its concentration of defense suppliers. It's going to give us a downturn."

Fitzmartin anticipated trouble two years ago, when 40% of his customers were Pentagon contractors. The company retargeted its marketing efforts, pitching product maintenance, office redesign, and warehousing, as well as furniture sales. Today Fitzmartin pulls only 10% of his revenues from the defense sector.

C. J. Mead isn't hostage to defense spending, but he is being buffeted by negative currents in the building industry. His $7.5-million Construction Contracting & Management Inc., in Albuquerque, is having a tough go of it. "Most of the private-sector work has just stopped all over the Rio Grande Valley," he notes. "The developers have flat crawled under a rock for a while." Bidding for municipal and government projects is so fierce that contracts are going for 20% below what engineers estimated.

Mead has hunkered down to ride out the slump. "We're looking to sell some of our heavy equipment and pay down our debt," he says. "We're fixing the stuff that we have in order to do what work we get. But we're not buying anything new." He does see a safety valve in Las Vegas, however, where he'd like to open a satellite office. The Vegas market, he declares, is "going nuts."

Mark Ain's company, Kronos Inc., manufactures electronic time clocks in Waltham, Mass. "I don't think we're going to have a recession this year," Ain says. "We may well have a slowdown, and we're preparing for it. We have eliminated bank debt and put seven figures in the bank. We're watching our receivables and our inventory very carefully." Nonetheless, $35-million Kronos just had the best first quarter in its history. ❑



ROBERT TOBEY

Ben Cohen

Cofounder

Ben & Jerry's Homemade Inc.

Waterbury, Vt.

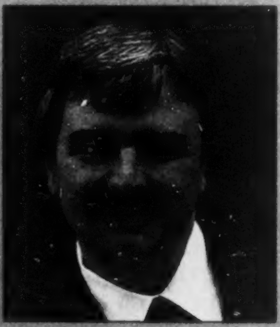
National recession: Yes

Regional recession: "I haven't noticed."

Indicators: Overinvestment of money and talent in the military

Strategic response: Lower waste; improve worker productivity; investment in energy efficiency

Comments: "When you can't afford to buy a new house, a new car, or a new TV, you're still going to shell out two bucks for superpremium ice cream."



THOMAS ENGLAND

Dennis Hayes

CEO and founder

Hayes Microcomputer Products Inc.

Norcross, Ga.

National recession: No

Regional recession: "Some parts of the Southeast are pretty bad off and have been for a while. The Georgia economy seems to be stabilized."

Indicators: Prime interest rate; inventory turns in industry; performance of computer/telecommunications sector

Strategic response: Expanded in faster-growing Asian and European markets; emphasized quality

Comments: "At a time when heavy industry has reduced capital budgets, we find they're still buying our equipment because it helps reduce costs."

HANDS ON

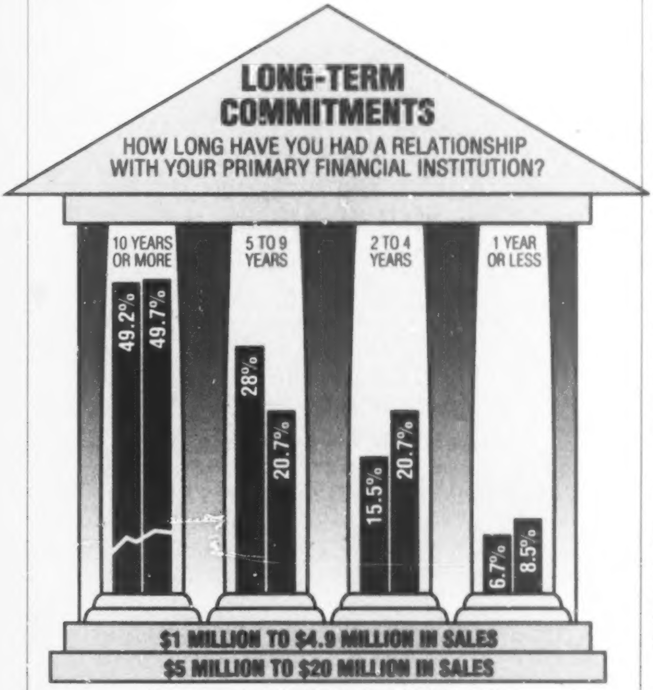
A Manager's Notebook

FREE

GOOD-NEIGHBOR POLICY

According to a survey of small-business CEOs by Arthur Andersen & Co., the number-one impediment to exporting is lack of information. But don't try to use that excuse when it comes to the Canadian marketplace. An on-line database called BOSS (Business Opportunities Sourcing System) can put you in touch with more than 20,000 companies in Canada. It's brought to you free, courtesy of the Canadian Department of Regional & Industrial Expansion.

You can target your market by product, province/city, and size of company, then (if your computer has the capacity) download the information onto mailing labels. The package includes a statistical service on the Canadian economy, as well as a series of hard-copy directories. Write to: BOSS, Dept. of Regional & Industrial Expansion, 235 Queen Street, Ottawa, Ontario K1A OH5 Canada. ❑



Source: American Banker Small Business Survey, New York City, 1989

MANAGING PEOPLE

TAKING STOCK

Gail Hering, CEO of Atmosphere Processing Inc., an automotive supplier in Holland, Mich., wanted to keep her employees up to date on the company's performance. She decided to follow the model of public companies' annual shareholder meetings and instituted an annual jobholders' meeting.

Since 1982 about 40% of the company's 180 employees have chosen to participate in the voluntary Saturday-morning event, a day that was picked because the factory is closed, the sales staff is off the road, and everyone has the opportunity to attend.

The group congregates in an off-site auditorium for about three hours to hear reports from key managers on standard public-company financials such as company profits, expenditures, investments, and strategies. Says Hering: "I'm a strong believer in the philosophy of 'The more employees know, the more valuable they are to the company.' These meetings show employees we aren't just paying lip service to how valuable their contribution is to this company." ❑

COMPENSATION

MONEY FOR NOTHING

Small, growing companies usually can't pay their people as much as the large outfit down the street. And while employers know that insurance and the cost of other benefits are eating them alive, their employees rarely understand the true expense of keeping them on the payroll.

Doug Greene, CEO of New Hope Communications Inc.—a Boulder, Colo., company that publishes magazines for the natural-foods industry and economic development—makes sure his employees know exactly what it costs the company to keep them on board.

"We don't just tell a new employee she'll be making $25,000 a year," says Greene. "We say her total benefit package is $36,750, and then we explain that in addition to the $25,000, we are also paying $495 a month for her insurance, $25 for parking, and so on down the line."

Greene is convinced his disclosure makes it easier to control his costs. In giving her a raise, Greene might tell the employee her total compensation package is being hiked 11%, including a 4% raise in compensation and a 7% increase in benefits. That helps impress upon the employee some of the increases in insurance premiums New Hope has had to pay. ❑

TRAVEL AND ENTERTAINMENT

STRENGTH IN NUMBERS

When it comes to travel, we all suspect that others get better deals than we do. In 1986 James Dick had his suspicions confirmed while checking out of a luxury hotel in Manhattan. The guest to his left was settling a bill a fraction of the size of Dick's for the same number of nights. The reason? The neighboring customer represented a big firm that was given corporate rates.

Dick was angry and curious enough to organize a service that liberates small-business travelers from the hotel's rack rates. He resigned his post as chairman of SNAP (Shared Network of Apparel Producers) and founded Express Hotel Reservations.

By unifying lone room seekers into one economic force, Express Hotel Reservations secures, on average, a 20% to 30% discount for accommodations in New York City, Los Angeles, and San Francisco. With no membership fee or user surcharge, small-business owners can use Express Hotel Reservations by calling (800) 356-1123 before checking in. ❑

START-UPS

CHECK IT OUT

When researching business opportunities, trying to get the inside scoop on an unfamiliar industry can be frustrating. When Dennis Iacobbo wanted to learn more about the temporary-help industry, he interviewed for a sales job at one such company to find out about it.

He gleaned enough information to start Job Link Inc., a Providence agency specializing in factory temporaries. "I learned how to price the product, what kind of taxes to apply, how much to charge for overhead, and what a time card should feature as well as how to get it back, approved, verified, and pay the proper taxes," recounts Iacobbo. He and partner Ali Cabral turned a profit in their opening week, and today Job Link grosses more than $10 million a year. ❑

RESOURCE

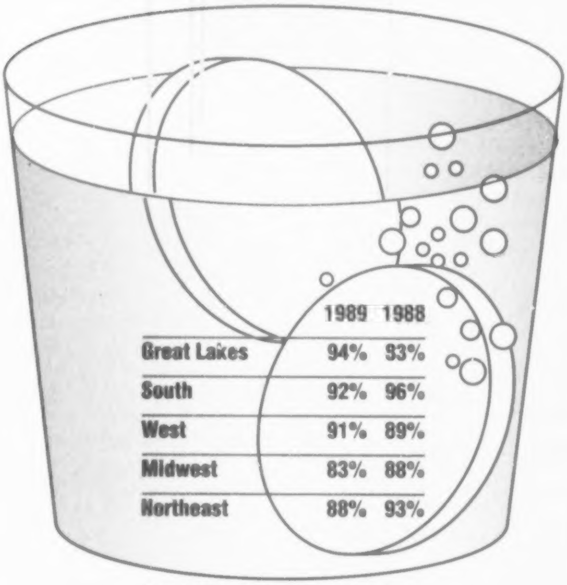
BUSINESS ED

If time and again you find yourself explaining the fundamentals of business to an enthusiastic but inexperienced staff member, help is on the way from Bank of America. The *Small Business Reporter* series of 16 booklets addresses such topics as the fundamentals of cash-flow management, financial statements, marketing, management pitfalls, and a lay guide to computers.

Most titles cost $5 and get down to brass tacks in a user-friendly 15 pages. For more information write: *Small Business Reporter*, Bank of America, Dept. 3120, P.O. Box 37000, San Francisco CA 94137. ❑

TEMPORARY RELIEF

USE OF TEMPORARY EMPLOYEES BY REGION



	1989	1988
Great Lakes	94%	93%
South	92%	96%
West	91%	89%
Midwest	83%	88%
Northeast	88%	93%

Source: "1989 Contract Labor Survey," Administrative Management Society Foundation, Trevose, Pa.

SALES

RALLYING THE TROOPS

Sales contests are designed to motivate the troops, but once salespeople feel they're out of the running for prizes, they won't work as hard. Network General Corp., a software company in Menlo Park, Calif., took this into account when it designed a major selling contest three years ago for its outside reps. "It worked out great," says George Comstock, vice-president for business development.

Instead of offering one prize, the company set different award levels. At one level, for example, winners received a Caribbean cruise for one person, at another level the same cruise for two. Midway through the contest, a third level was added: a trip for two to Tahiti.

Instead of employees becoming discouraged, "these guys were pulling all the way through," Comstock says, and about 30 people won trips. The prizes cost the company a lot of money, admits Comstock, "but it was worth it—the contest more than paid for itself." ❑

(HANDS ON continued)

MARKETING

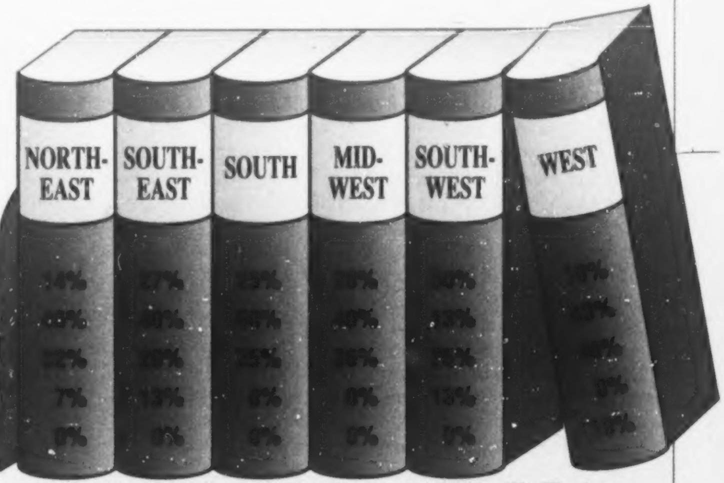
WHO'S CALLING?

Richard A. Gagne, owner of Dental Horizons, in Oxnard, Calif., never used to be sure which of the many places he advertised were generating the most dollars of dental service. Then he started listing different phone numbers—his office has several lines—in any advertisements that were running concurrently.

"Now, we always track which ads are drawing phone calls," says Gagne, who compares response rates to ads in different publications, and then allocates his ad budget accordingly. ❑

REMEDIAL EDUCATION

OVER THE LAST FIVE YEARS, HAVE YOUR REMEDIAL TRAINING ACTIVITIES:



	NORTH-EAST	SOUTH-EAST	SOUTH	MID-WEST	SOUTH-WEST	WEST
Significantly increased	14%	27%	25%	[illegible]	[illegible]	19%
Slightly increased	48%	40%	50%	40%	33%	23%
Stayed the same	32%	20%	25%	[illegible]	20%	40%
Slightly decreased	7%	13%	0%	0%	13%	8%
Significantly decreased	0%	0%	0%	0%	0%	10%

Source: "1989 SHRM Training/Retraining Survey," of the Society of Human Resource Management of 613 organizations, one-third of which have 100 to 500 employees

TECHNOLOGY

TALK IS CHEAP

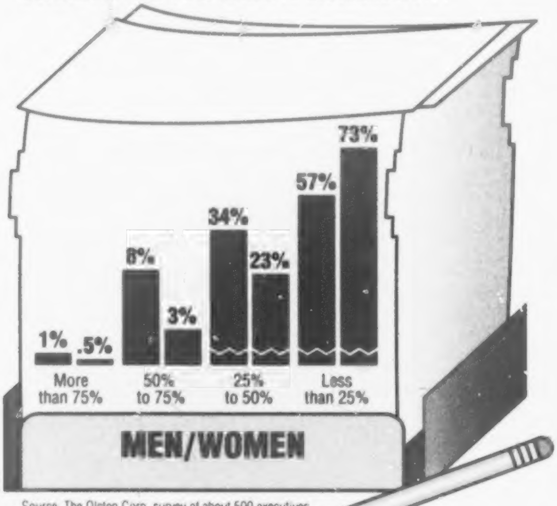
Because her delivery people had to pull off the road to call the office, Betsy Hoaglin, CEO of $5-million RADS Radiography Service Inc., in Clearwater, Fla., figured missed connections were costing her two to three deliveries a day. She put a stop to the expensive game of telephone tag by equipping her mobile X-ray units with cellular telephones.

Even though each phone cost $1,000 two years ago, the additional revenue generated was more than enough to cover the initial investment and the phone bills of $300 a month.

Although the cost of cellular phones has dropped to $450, Hoaglin's competitors still haven't equipped their vehicles, giving RADS an edge. ❑

PAPER CHASE

WHAT PERCENTAGE OF PAPERWORK CURRENTLY ON YOUR DESK IS UNNECESSARY?



Source: The Olsten Corp. survey of about 500 executives of large and small companies, Westbury, N.Y. 1909

ON THE CHEAP

USEFUL UTILITY SOFTWARE

By Cary Lu

Anyone with a desktop computer needs at least two types of software to get some work done—an operating system, such as MS-DOS, and applications, such as word processors and spreadsheets. But there is a third kind of software we usually ignore until we run into trouble: utility software, which can perform a variety of essential and convenient functions.

- **Undelete** recovers files that have been accidentally deleted.
- **Backup** copies the contents of your hard disk drive onto floppy disks or data tape so you still have your information if your hard disk fails—or is stolen.
- **Viewers** let you see the contents of common word-processor, spreadsheet, and database files without starting the application.
- **Shell** replaces the cryptic C> of MS-DOS with a full screen display of files on your disk; such common MS-DOS tasks as copying a file can be performed by pressing a function key rather than typing out commands.
- **Link** ties two computers together with a cable to exchange data. Most commonly used between desktop and laptop computers, it's also good for setting up multiple computers in an office.

Although it's possible to buy a separate program for each of these functions, there is a bargain package available that performs all these tasks and more. PC Tools Deluxe from Central Point Software (503-690-8090, about $100) has all the ordinary utilities that the average MS-DOS user is likely to need.

On the Macintosh side, you will need two packages to handle the same tasks. DiskTop from CE Software (515-224-1995; about $70) has many useful utilities for looking at disk files. I recommend combining it with a package that can perform backups and recover deleted files. SUM II, from Symantec (408-253-9600; about $100) or Mac Tools Deluxe from Central Point Software ($100) are good choices for that second package. ❑

CUSTOMER SERVICE

INSTANT GRATIFICATION

Haven't we all answered a customer service survey, only to experience little or no change in service? Bud Hadfield, CEO of Kwik Kopy Corp., uses what he finds out from his surveys on a demanding bunch of customers: his franchisees.

Every month 50 of Hadfield's 125 employees at Houston headquarters contact all of his 1,000 franchise owners and make two requests: "Give me one thing to do for you" and "Please rate us on a scale of one to 10." The caller makes sure that the request is delivered and files a report to Hadfield.

"Besides serving our franchisees, it makes spotting market trends a cinch, so we can act quickly," says Hadfield, who produced a videotape on hazardous-waste disposal after questions started coming up on the topic. And pairing staff with franchisees gives customer service a personal touch. ❑

MEETINGS

RACING THE CLOCK

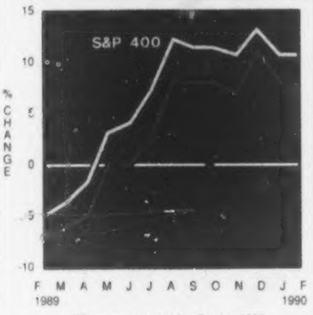
Tact and diplomacy may be admirable executive skills, but when it comes to moderating weekly staff meetings, it may be best to dispense with the formalities. Just ask Cecil Ursprung, president of Reflexite Inc., a $20-million reflective-plastic products maker in New Britain, Conn., whose weekly staff meetings recently grew from 6 to 14 people.

"These people have no problem speaking up," says Ursprung. "We realized if everybody contributed at the same rate as when six people attended, it would last half a day." So to keep the contributions brief, he invested in a $6 alarm clock. Now, each staffer can stump for six minutes before the alarm rings. "The return on investment is incalculable," quips Ursprung, who says the meetings stick close to the target 84 minutes—and he doesn't have to play the heavy. ❑

Reported by Teri Lammers, Paul B. Brown, Martha E. Mangelsdorf, Bruce G. Posner, and Eric Zicklin

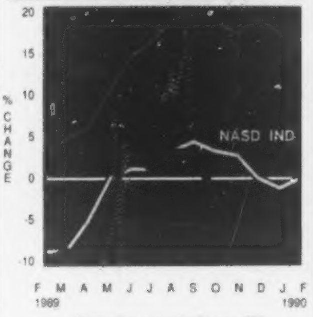
INVESTING IN GROWTH COMPANIES

INC. vs. CONSERVATIVE AVERAGES



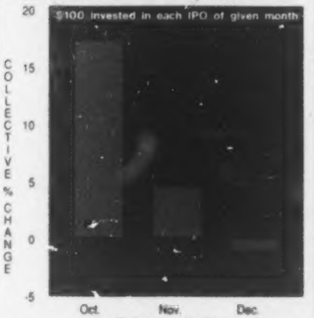
All averages start at 0 in October 1987.

INC. vs. SPECULATIVE AVERAGES



All averages start at 0 in October 1987.

IPOs IN THE AFTERMARKET



To February 15, 1990

INITIAL PUBLIC OFFERINGS: JANUARY 1990

O-T-C sym.	Company	Business/product	Offering Size ($ mil.)	Offering Price	First aftermarket bid	Underwriter
MMF[a]	**ACM Managed Multi-Market Trust**	Closed-end fund	108.00	12.00	12	R. W. Baird
BCAM	**Biomechanics Corp. of America**	Provides biomechanical consulting svcs.	4.40	4.00[b]	4¾	D. H. Blair
CMCM	**CM Communications**	Provides cellular telephone svcs.	3.50	5.00	6½	Donald & Co.
DEFCU	**Definicon International**	Mfrs. computer add-in boards	3.60	6.00[c]	4⅞	L. C. Wegard
HERC	**Hadson Energy Resources**	Explores & develops oil & gas	39.00	13.00	13	Drexel Burnham
LUX[a]	**Luxottica Group S.P.A.**	Mfrs. eyeglass frames	68.40	19.00	18¾	Merrill Lynch
MAFB	**MAF Bancorp.**	Bank holding co.	7.59	8.50	8½	Merrill Lynch
SHOEU	**Millfield Trading**	Designs & distr. footwear	5.50	5.00[d]	5⅞	Whale Securities
GF[a]	**New Germany Fund**	Closed-end fund	375.00	15.00	20	Deutsche
RPCX	**Roberts Pharmaceuticals**	Mfrs. pharmaceuticals	12.00	6.00	6	Rosenkrantz
MCS[a]	**Taurus MuniCalifornia Holdings**	Closed-end fund	51.00	12.00	12	Merrill Lynch
MNY[a]	**Taurus MuniNew York Holdings**	Closed-end fund	66.00	12.00	12	Merrill Lynch
TRCR	**TriCare**	Provides medical & legal evaluation svcs.	10.40	6.50	6½	Volpe
TWIN	**Twin Star Productions**	Mkts. & distr. consumer products via television programs	4.00	3.00	3⅛	F. N. Wolf

Initial public offerings sold at $1 or less not included. First aftermarket bid is approximate. [a] trading on NYSE; [b] units of 3 common + 2 warrants; [c] units of 1 common + 2 warrants; [d] units of 1 common + 1 warrant. Offering data source: *Going Public: The IPO Reporter*, a publication of The Dealer's Digest Inc., 150 Broadway, New York, NY 10038.

STREET TALK

Could there have been a more relentless succession of bad economic news stories turning into the '90s? The savings and loan fiasco still unreeling and still unsolved; retail units of Campeau Corp. filing for protection from creditors because they couldn't service their debt; Wall Street investment banker Drexel Burnham Lambert Inc. shut down, adding more highly paid financial-sector workers to the thousands already out of cushy jobs; high-yield bond prices in disarray, wreaking havoc on yet more S&L portfolios. And that's just naming a few adverse items.

Yet our leading stock indicators only grudgingly gave ground. As of mid-February, the DJIA was situated within a couple of weeks' hailing distance of its all-time high of 2,810, set on January 2. For that bit of comfort, such as it is, we can largely thank the computer programs, which sporadically ran up the prices of blue-chip stocks—the ones that affect the averages—whenever the opportunity for arbitraging profit arose.

Outside of those velvet-lined baskets, however, a considerable proportion of stocks was under siege. Like the NASDAQ chart on this page, many had retreated to their September 1987 levels; some, like our own lifeless INC. Index, had already strayed back into minus ground. To veteran observers, these were only two among a number of dire signs that suggested a bear market in equities had already set in and a decline of generous proportions was in the offing.

To make that chilling prospect (considering that, as in the late '20s, banks are again in deep trouble) of even wider concern, most of the world's stock markets simultaneously were rolling over and threatening a similarly extended decline. One notable exception was West Germany's, significantly ahead of a year earlier. For this circumstance Streeters credited the Japanese appetite for equities. They had yet to run out of pocket change and were drooling over the prospect of a unified Germany. —*Robert A. Mamis*

MEDIA POWER

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APRIL 1990 VOL. 12 NO. 4

THE INC. 100: AMERICA'S FASTEST-GROWING SMALL PUBLIC COMPANIES

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Inc.

THE MAGAZINE FOR
GROWING COMPANIES

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CEO of IDB Communications Group

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COVER PHOTOGRAPH
by
Rob Lewine

THE INC. 100

The 12th annual ranking of America's fastest-growing small public companies

WHAT A SYSTEM! AT THE BEGINNING of the past decade the average company tabulated in these pages didn't even exist. Which means the jobs each of those companies now bestow—an average of 667—didn't exist, either. Neither did hundreds of new products, scores of happy stockholders, a dozen novel ideas and trends, nor a handful of new millionaires. Nor, to be sure, a couple of instances of fiduciary excess, a scattering of chief executive resignations, a number of lawsuits, and the rest of the typical detritus that competitive commerce throws off—a small enough fee to enjoy the air-your-laundry-in-public wonder of free enterprise.

If there is a lesson in these pages for Russians and Czechs and other Johnnies-come-lately to a market economy, it's that for all the years they've wasted on systems that fizzled, the table of free and private enterprise remains bountiful. And that it's available to anyone with money to risk, energy to burn, hours to spend, a belief in him- or herself, and chutzpah enough to coax capital from people he has never met and never will.

That's the hard part. The rest is easier still, suggests this 1990 gathering, INC.'s 12th annual roundup. For example, the presence on the list of fast-food chain **Rally's** (#5) shows that you can beard giants in their kitchens and still gain a share of hamburger spoils. And you don't have to be seasoned in the ways of business to pull it off. IBM-PC clonemaker **Dell Computer** (#32) was founded in 1984 by a teenager who naïvely—but successfully—took on a huge corporation founded more than 70 years earlier.

And what's proffered for sale needn't be glamorous or pricey. Specialty retailer **Silk Greenhouse** (#31) has been on the INC. 100 for two consecutive years, simply through selling artificial flowers and genuine party favors. **Jean Philippe Fragrances** (#42) distributes and markets alternative perfumes; its Shangrila, a self-admitted rip-off of Shalimar, retails at K mart at a fraction of Shalimar's price. And what humbler endeavor is there than cashing checks and selling lottery tickets out of a storefront, as does **Supermail International** (#58)?

In the end, though, the most persuasive testimony to exactly how *free* free enterprise can get is the way products put out by one fast grower can be recirculated by another, allowing the latter to flourish just as fast. On the list for two straight years—following 30 straight centuries during which no other aspirant from its particular industry sector qualified—six-year-old **Cash America Investments** (#79) has twice occupied INC. 100 slots by dint of becoming what the company claims is the largest pawn-shop operation in the country. Now *there's* food for Eastern Bloc thought.

Other notes and observations from the 1990 INC. 100:

BUT WHAT DO THEY DO?

In a brief description, the list attempts to capture the essentials of what business each company is really in. Sometimes, though, far more than a scant line of type is required to do it justice. **Metro Mobile CTS** (#37), for example, is described herein as both a cellular phone service and seller of propane. How one endeavor ties in with the other might escape the uninitiated observer; to CEO George Lindemann, they're "entirely compatible. . . . Both are consistent with our long-standing preference to operate utilitylike businesses." Ironically, *he* may consider his setup utilitylike, but if INC. did, the company wouldn't have made the list: INC.'s criteria specifically exclude utilities.

When the market-driven company couldn't leave well enough alone with a line of nonaerosol spray containers, two-time listee **Selvac** (#47) moved into the personal-care market with a proprietary hair-removal device. Recently, it plunged into beauty parlors. Not only does that sequence follow the logic of complementary businesses, explains CEO Allan Borkowski, but the salons provide built-in consumer testing labs for untold lines of businesses to come.

Amerihost Properties (#67), on the other hand, had the good sense to change its corporate name at the same time it changed—quite markedly—its line of business. In 1987, as America Pop Inc., the company sold off a string of refreshment stands and began building motels.

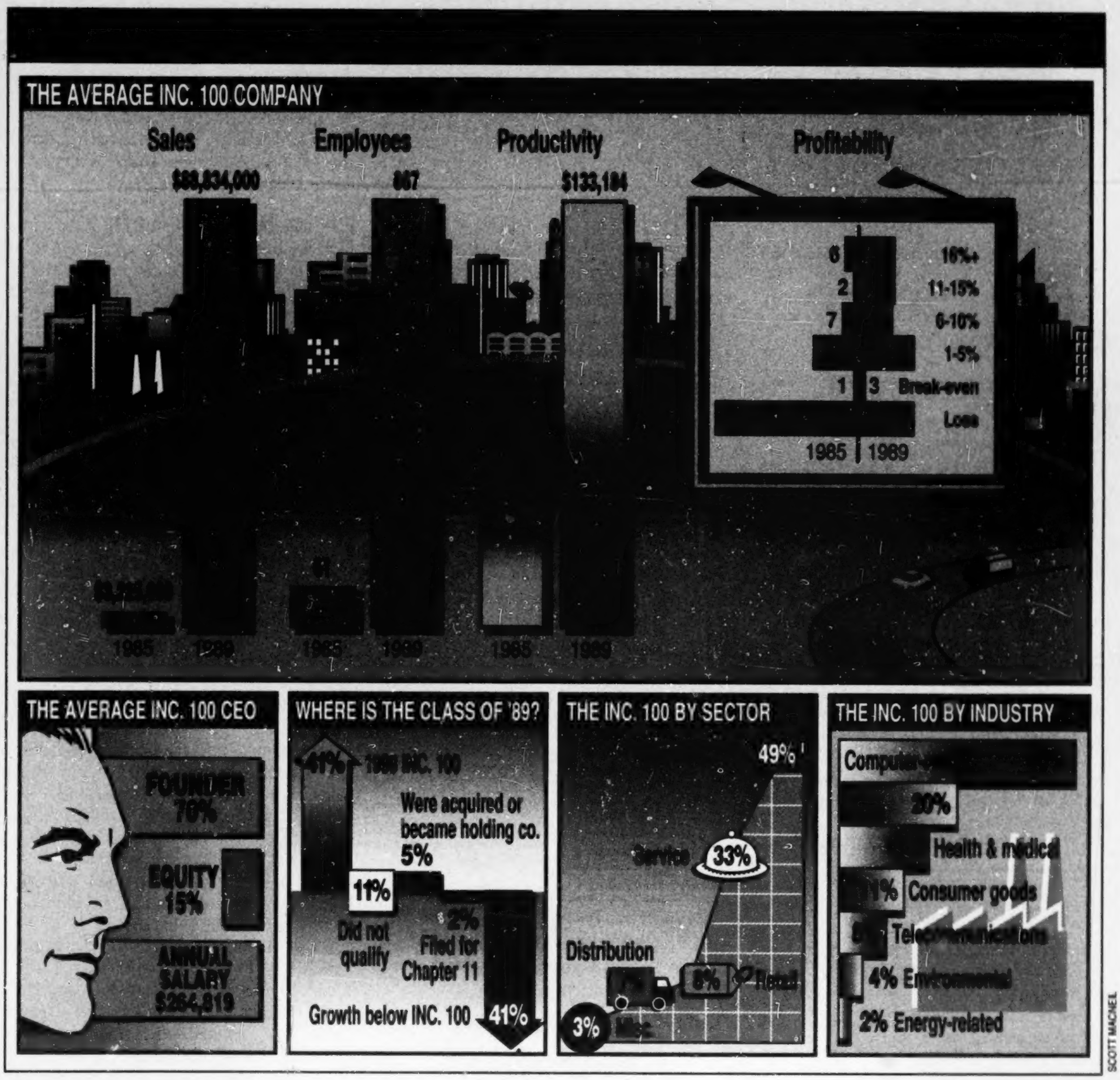
LOSS LEADERS

With 72 entries profitable and 3 breaking even in 1989, the list is little better or worse than usual. But 7 of the remaining 25 showed no profit in fiscal '89—nor did they post one in *any* of the four previous years. Of these perennial money losers, 3 are cellular phone services, an industry distinguished by odd arrangements that don't seem intended to yield profits in our lifetime.

The other 4:

■ **Infrasonics** (#59). After eight years this medical-equipment manufacturer has yet to post an annual profit, but president Jim Hitchin is starting to breathe easier. The company's line of respirators was developed in-house and is fully paid for. As a result, "all future revenues and profits will belong to the company and benefit our shareholders without having to share the profits with outside partners," he says. The company posted its first-ever profitable quarter in '89.

■ **CNS** (#76). For this eight-year-old venture-



SCOTT MACNEIL

backed manufacturer of brain-wave monitors, the transition from development to marketing was "a difficult maturation process," claims CEO Daniel Cohen, a doctor-turned-businessperson. There's hope for annual consistency: after nine consecutive quarters of record sales, in '88 CNS reported one quarter, anyway, of profit: a penny per share.

- **FranchiseIt** (#77). Faced with negative earnings from a core business that focused on franchising activities for most of its seven years, the company up and bought an Israeli biotech concern last September. Why so distant and so seemingly unfranchiseable an acquisition? Investors may never know: at a special directors meeting less than two months later, its president resigned.
- **Environmental Diagnostics** (#86). Depending mostly on equity placements for working capital since its founding in '83, this drug-detector manufacturer is still in transition from R&D stages. Again, that process is "seldom without delays and difficulties," explains CEO James D. Skinner. True, but a $500,000 proxy fight did little to foster shareholder patience: the stock was among the 100's worst performers (see box on the following page, "Fair to Middling").

MAKE-WORK

Anyone moved to question small business's importance as a job creator need only examine the list's top five employers, which provide jobs to more than 22,000 people. The leaders of '89: **Blockbuster Entertainment** (#14), 9,000 employees; **Oracle** (#50), 4,148; **Rally's** (#5), 4,000; **Healthsouth Rehabilitation** (#39), 3,000; and **Silk Greenhouse** (#31), 2,200.

The revenue per employee of this year's throng is $133,184, up an impressive $80,315 from its 1985 performance. The pace of the rise in productivity far exceeds the rate of inflation, suggesting that either—your choice—the labor force is working harder and more efficiently or that its employers have caught on to nonlabor-intensive sources of revenue such as joint ventures, international licensing, and subcontracted manufacturing. The 100's most productive employees: **Intelligent Electronics** (#27), 287 employees producing $2.5 million each in '89 sales; **Pentech International** (#82), 10 doing $2.3 million; **Action Staffing** (#57), 84 doing $1.5 million; **Selectronics** (#26), 27 doing $799,000; and **Entertainment Marketing** (#53) 280 doing $670,000.

COMING ATTRACTIONS?

The list's most identifiable trend is that con-

FAIR TO MIDDLING

Relative stock performance: how the INC. 100 stack up

Every March, as sure as maple sap rises in maple trees, INC. evaluates the 12-month market performance of its latest crop of fast growers. Mathematically speaking, INC. performs this exercise by pretending to have invested $100 the previous year in the stock of every company on the new table. (Those that went public during the period—as did a baker's dozen this year—are "bought" at the price at which the IPO begins trading.)

On March 1, 1990, INC. "sold" its holdings, with the happy result that our initial $10,000 investment had grown to $11,165. That return (not adding in cash dividends, of which, of course, there are scant few in any INC. 100 list) nicely bettered its speculative brethren, the American Exchange Index and the NASDAQ Industrials, by more than two percentage points. However, the more conservative body of stocks as represented by the DJI and S&P averages solidly outdid INC.'s bunch.

Nearly as many stocks went up, 48, as went down, 50. And, compared with the past, 1990 was only moderately fecund: a mere 10 companies split their stocks 3-for-2 or more, all but 2 of those ending up among the list's gainers.

A relatively large number of issues—22—were selling for $2 or less on March 1, 1990. Of these, only 2 were on the rise, suggesting that a comparatively low price may adversely affect market performance. Fearing exactly that, 2 companies declared a reverse split, employing the tactic to propel their respective stock prices from well under to well over $2; both finished up the year among the gainers.

For all the nail chewing involved in watching 100 speculative stocks go up and down for 12 months, a 12% return isn't that much better than could have been squeezed out of T-bills.

Still, if the year proffered better opportunities than the majority of these stocks, it also hazarded far worse. Ask anyone who invested with Drexel Burnham Lambert. Or used to work there.

RELATIVE MARKET PERFORMANCE

Industrial Index	3/1/89	3/1/90	% Change
INC.	**100**	**112**	**+12.0**
DJIA	2,243	2,636	+17.5
S&P	331	383	+15.7
AMEX	322	354	+9.9
NASDAQ	394	432	+9.6

THE TEN BEST GAINS . . .

What $100 invested on 3/1/89 was worth on 3/1/90:

Company	
Software Toolworks (#73)	$321
AutoInfo (#38)	283
Occupational-Urgent Care Health Systems (#68)	280
Candela Laser (#94)	233
SynOptics Communications (#21)	207
Oracle (#50)	201
T^2 Medical (#12)	200
Silicon Graphics (#97)	193
Altera (#74)	188
Sequent Computer Systems (#36)	187

. . . AND THE TEN WORST LOSSES

What $100 invested on 3/1/89 was worth on 3/1/90:

Company	
FranchiseIt (#77)	$15
Supermail International (#58)	27
Environmental Diagnostics (#86)	28
Action Auto Rental (#85)	37
USMX (#62)	39
Measurement Specialties (#25)	39
CCAir (#93)	42[1]
Osicom Technologies (#8)	44
Symbol Technologies (#80)	47
Brite Voice Systems (#81)	48[2]

[1] first public 7/89; [2] first public 9/89

spicuous consumption has caught on well enough to spur fast growth among even small businesses. **Regency Cruises** (#48) books air and sea tours and operates steamships. **Vacation Publications** (#95) runs a travel club. For anyone electing to hang around near home, three companies fill idle hours: **Blockbuster Entertainment** (#14) rents videocassettes. **International Broadcasting** (#44) produces movies and traveling shows and operates amusement parks. **Entertainment Marketing** (#53) distributes consumer electronics, but—the start of another trend?—has abandoned its cable home-shopping service.

YOU'RE THE GREATEST

A selection of distinctions, the 1990 INC. 100 versus its predecessors:

- Youngest ever. A listee's average age is 8 years, significantly down from the early '80s, when it hovered between 12 and 13.
- Fewest oil- and/or gas-oriented. Only 2 are energy-related, compared with 25 in 1982, energy's heyday.
- Most computer-related companies.
- Once again, a company from Hawaii, Mississippi, Montana, North Dakota, or South Dakota has yet to make it.

DON'T BLAME US—WE JUST REPORT IT

Only 2% of America's fastest-growing small public companies are run by women: Marina Zazanis, president of **NMR of America** (#40), and Christine Umbertino, CEO of **Supermail International** (#58).

PUBLIC VS. PRIVATE

Comparing public-company profits with similar claims to the black side of the ledger by private companies is like comparing baldwins and granny smiths. It's apples with apples, all right, but the recipe is different: while public corporations stress profits, private entities tend to minimize them. Even so, in some categories the contrasts between the INC. 100 public companies and the top 100 companies from the latest INC. 500 private-company fast-growth list (see INC., December 1989) are sometimes surprising, if not definitive. (Bear in mind that INC.'s public companies may have been private right up to a month before the closing date for this year's list.)

For example, examining the profitability (net income after taxes divided by gross sales) of the two groups discloses more of a tendency toward negative earnings among public than private companies. In their base year, 64 of the former showed losses versus 50 of the latter; four years later 25 public companies posted losing figures, while only 10 private companies did.

Closer to expectations, 47 private companies told INC. their profitability in their final year was in the 1% to 5% range, while only 25 public companies reported so modest a ratio. At the other end of the tax collector's scale, 16 public companies boasted profitability of 16% or more, compared with only 12 private companies.

The average age of INC.'s public companies is steadily coming down, but the private group is similarly youthful; average public company age is 8, 9 for private companies. Yet in their first year reporting to INC., the average former outsells the average latter $3.2 million to $500,000. In the fifth reporting year, the percentage imbalance closes, $88.8 million to $27 million—which is to say either private companies grow faster than public companies, or their base-year bookkeeping was, let us say, a bit sloppy.

One other variance of note: the typical public-company CEO owns a token 15% of his or her company, the typical private CEO a commanding 53%. Who's better off? Sorry, an assessment of personal net worth is out of our reach. *—Robert A. Mamis*

				SALES GROWTH (1985-1989)		REVENUES ($000)	
1990 RANK	COMPANY	1989 RANK	BUSINESS DESCRIPTION	COMPOUND ANNUAL GROWTH	PERCENT INCREASE	1989	1985
1.	**Network Equip. Technologies** (Redwood City, CA)		Mfrs. advanced communications products	413%	68,955%	$136,729	$198
2.	**Digital Microwave** (San Jose, CA)		Designs & mfrs. telecommunications products	325	32,561	65,976	202
3.	**Encore Computer** (Fort Lauderdale, FL)	**95**	Mfrs. & mkts. computer systs.	323	32,059	157,900	491
4.	**Cirrus Logic** (Milpitas, CA)		Mfrs. integrated circuits	312	28,705	36,870	128
5.	**Rally's** (Louisville, KY)		Operates drive-through restaurants	295	24,226	31,137	128
6.	**Brajdas** (Woodland Hills, CA)	**30**	Distr. electromechanical devices	270	18,665	62,863	335
7.	**Oxford Energy** (Santa Rosa, CA)	**57**	Operates power generation facilities	265	17,678	24,000^c	135
8.	**Osicom Technologies** (Rockaway, NJ)	**22**	Distr. value-added peripheral products	253	15,440	108,003	695
9.	**Adtec** (San Antonio, TX)		Designs & assembles lock mechanisms	253	15,349	21,628	140
10.	**Digi International** (Minneapolis, MN)		Mfrs. data communications products	243	13,703	14,631	106
11.	**Medical Imaging Ctrs. of America** (San Diego, CA)		Provides diagnostic imaging svcs.	217	9,977	40,107	398
12.	**T^2 Medical** (Roswell, GA)		Provides medical equip. & training svcs.	215	9,786	38,358	388
13.	**Cellcom** (Fairfield, NJ)		Resells cellular telephones & svcs.	208	8,848	76,865	859
14.	**Blockbuster Entertainment** (Fort Lauderdale, FL)		Operates & franchises video rental stores	208	8,847	402,538	4,499
15.	**Random Access** (Denver, CO)		Resells microcomputers	198	7,761	21,853	278
16.	**Vencor** (Louisville, KY)		Provides care to chronically ill patients	197	7,638	54,400	703
17.	**Surgical Laser Technologies** (Malvern, PA)		Mfrs. surgical lasers	195	7,468	22,628	299
18.	**Communication Cable** (Siler City, NC)		Mfrs. specialty electronic cables	195	7,440	22,167	294
19.	**Zeos International** (St. Paul, MN)		Mfrs. personal computers	191	7,119	37,393	518
20.	**Rocking Horse Childcare Centers** (Cherry Hill, NJ)		Operates day-care centers	186	6,567	25,200	378
21.	**SynOptics Communications** (Mountain View, CA)		Mfrs. network systs.	184	6,411	77,289	1,187
22.	**Egghead Discount Software** (Issaquah, WA)		Sells personal computers & software	183	6,292	342,427	5,357
23.	**Cabletron Systems** (Rochester, NH)		Mfrs. & mkts. LAN products	182	6,219	54,785	867
24.	**L.A. Gear** (Marina del Rey, CA)	**62**	Designs, imports, & distr. footwear	176	5,674	617,080	10,687
25.	**Measurement Specialties** (Fairfield, NJ)	**63**	Mfrs. & sells digital measurement products	167	5,014	15,803	309
26.	**Selectronics** (Minneapolis, MN)	**49**	Mfrs. & mkts. electronic reference products	166	4,919	21,581	430
27.	**Intelligent Electronics** (Exton, PA)	**100**	Distr. microcomputers	166	4,889	711,671	14,266
28.	**Teradata** (Los Angeles, CA)	**1**	Mfrs. & mkts. computers	164	4,756	137,411	2,830
29.	**Vanguard Cellular Systems** (Greensboro, NC)		Owns & operates cellular telephone systs.	159	4,408	46,613	1,034
30.	**Symantec** (Cupertino, CA)		Mfrs. & distr. software	159	4,407	39,886	885
31.	**Silk Greenhouse** (Tampa, FL)	**43**	Mfrs. & sells silk flowers & party goods	154	4,089	55,211	1,318
32.	**Dell Computer** (Austin, TX)		Designs & mfrs. IBM-compatible PCs	154	4,062	257,810	6,195
33.	**Aldus** (Seattle, WA)		Mfrs. & mkts. desktop publishing software	150	3,833	87,853	2,234
34.	**American Power Conversion** (Peace Dale, RI)	**40**	Mfrs. computer power supply products	146	3,562	35,410	967
35.	**Molecular Biosystems** (San Diego, CA)		Mfrs. ultrasound imaging agents	146	3,549	8,867	243
36.	**Sequent Computer Systems** (Beaverton, OR)	**6**	Mfrs. computer systs.	141	3,266	145,560	4,325
37.	**Metro Mobile CTS** (New York, NY)		Operates cellular telephone svcs./sells propane	138	3,122	111,295	3,454
38.	**AutoInfo** (Maywood, NJ)		Provides communications & database svcs.	135	2,965	6,007	196
39.	**Healthsouth Rehabilitation** (Birmingham, AL)	**11**	Provides physical rehabilitation svcs.	134	2,900	149,211	4,973
40.	**NMR of America** (Morristown, NJ)		Installs & maintains medical imaging systs.	133	2,832	15,567	531
41.	**Dallas Semiconductor** (Dallas, TX)		Mfrs. integrated circuits	133	2,831	82,209	2,805
42.	**Jean Philippe Fragrances** (New York, NY)		Distributes fragrances	133	2,826	5,500^c	188
43.	**Dynatronics Laser** (Salt Lake City, UT)		Mfrs. & mkts. medical devices	128	2,603	7,407	274
44.	**International Broadcasting** (Minneapolis, MN)	**14**	Produces & manages family entertainment	127	2,543	86,045	3,256
45.	**Adobe Systems** (Mountain View, CA)	**44**	Develops & mkts. software	127	2,536	121,358^i	4,604
46.	**Automobile Protection** (Atlanta, GA)		Provides financial & administrative svcs.	127	2,535	10,908	414
47.	**Selvac** (Dresher, PA)	**87**	Mfrs. continuous-spray systs.	126	2,530	10,703	407
48.	**Regency Cruises** (New York, NY)		Operates cruise line	126	2,504	124,823^i	4,794
49.	**Hunter Environmental Services** (Southport, CT)		Provides environmental consulting svcs.	125	2,472	108,108	4,204
50.	**Oracle** (Belmont, CA)	**74**	Mfrs. & mkts. database software	124	2,420	583,673	23,159

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NET INCOME ($000)		NO. EMPLOYEES		YEAR FOUNDED	YEAR PUBLIC	NO. ACQUISITIONS	CEO	CEO SALARY	CEO FOUNDER	CEO EQUITY
1989	1985	1989	1985							
$15,963	($6,193)	1,043	97	1983	1987	1	Bruce Smith	$465,260	Y	2.0%
11,576	(1,878)	323	22	1984	1987	0	William Gibson	210,583	Y	6.9
(31,900)	(23)	1,860	250	1983	1985	1	Kenneth Fisher	300,000	Y	12.2
4,059	(759)	178	18	1984	1989	0	Michael Hackworth	231,087	Y	2.1
1,835	(252)	4,000	30	1984	1989	9	Richard Sherman	398,000	N	1.1
2,034	4,930	240	25	1979	1981	0	Donald Zimmerman	0	N	50.0
1,009[9]	(166)	230	15	1984	1986	6	Robert Colman	243,000	Y	6.0
(2,977)	21	164	6	1981	1987	0	Parvinder S. Chadha	132,124	Y	28.0
226	(664)	150	30	1984	1987	1	Sam Youngblood	150,000	Y	18.0
2,826	(30)	62	8	1985	1989	0	John Schinas	128,035	Y	24.4
4,009	(2,005)	388	63	1981	1984	2	Antone Lazos	151,715[illegible]	Y	5.6[illegible]
7,929	33	284	33	1984	1988	30	Thomas E. Haire	257,000	Y	5.0
(662)	(268)	164	6	1983	1984	0	Jay Brown	500,000	Y	34.3
44,152	(538)	9,000	400	1983	1983	1	H. Wayne Huizenga	0	N	12.5
484	34	70	1	1984	1988	2	Bruce Milliken	98,000	Y	75.0
813	(71)	804	89	1984	1989	9	W. Bruce Lunsford	175,962	Y	21.0
1,212	(1,536)	66	15	1983	1989	0	David Joseph	150,981	N	6.5
1,103	13	160	24	1984	1986	1	James Fore	130,000	Y	7.1
1,687	(71)	219	27	1981	1987	0	Gregory Herrick	55,000	Y	53.0
500	(957)	1,800	80	1982	1985	21	Douglas Carneal	186,000	N	5.0
9,444	485	404	10	1985	1988	0	Andrew Ludwick	155,500	Y	4.7
(12,089)	(433)	1,955	75	1984	1988	0	Stuart M. Sloan	1	N	3.7
11,779	(4)	654	19	1983	1989	0	S. Robert Levine	52,000	Y	37.0
55,059	333	1,100	30	1979	1986	0	Robert Greenberg	5,000,000	Y	18.3
1,856	(428)	201	60	1981	1986	0	Donald Weiss	165,000	N	14.9
45	(338)	27	5	1983	1983	0	Michael Weiner	135,000	N	1.0
10,571	450	287	27	1982	1987	0	Richard Sanford	311,526	Y	17.6
16,285	(12,795)	1,312	175	1979	1987	0	Kenneth W. Simonds	333,487	N	1.3
(6,407)	(2,510)	575	75	1984	1988	0	Haynes G. Griffin	227,000	Y	5.4
3,157	(4,347)	240	40	1982	1989	3	Gordon Eubanks Jr.	131,175	Y	4.5
3,700	– 46	2,200	50	1982	1988	1	Jere Bradwell	238,978	Y	19.9
14,428	32	1,600	39	1984	1988	0	Michael Dell	440,000	Y	57.4
15,494	518	530	35	1984	1987	0	Paul Brainerd	257,693	Y	29.0
6,025	(46)	225	9	1981	1988	0	Rodger Dowdell	220,000	Y	13.8
2,212	(1,140)	105	25	1981	1983	0	Kenneth J. Widder	513,050	Y	5.4
16,018	(7,765)	1,100	110	1983	1987	0	Casey Powell	198,000	Y	2.6
(46,590)	(5,130)	930	48	1982	1986	0	George L. Lindemann	502,500	Y	38.9
639	(528)	35	8	1976	1986	0	Jason Bacher	100,000	Y	6.0
8,147	(1,548)	3,000	300	1984	1986	20	Richard Scrushy	390,000	Y	11.0
1,201	(1,115)	75	19	1982	1983	1	Marina Zazanis	52,000	N	16.6
11,121	(5,291)	589	99	1984	1987	0	Vin Prothro	250,000	Y	11.0
500[F]	7	16	2	1985	1988	0	Jean Madar	140,000	Y	30.0
703	(449)	38	5	1980	1983	0	Kelvyn Cullimore	159,589	Y	39.4
(6,083)	(1,373)	872	55	1982	1983	0	Thomas Scallen	311,000	Y	16.0
33,706	496	383	42	1982	1986	0	John Warnock	320,609	Y	3.6
189	3	34	6	1984	1988	0	Larry Dorfman	126,000	Y	15.2
1,325	(1,419)	60	12	1982	1983	1	Allan Borkowski	125,000	Y	4.6
5,462[9]	(1,268)	554	140	1984	1985	1	William Schanz	294,000	Y	8.0
(1,662)	(158)	1,500	30	1983	1986	7	Kirtland Gardner	150,000	N	1.0
81,766	1,551	4,148	239	1977	1986	0	Lawrence Ellison	1,734,375	Y	27.2

1990 RANK	COMPANY	1989 RANK	BUSINESS DESCRIPTION	SALES GROWTH (1985-1989) COMPOUND ANNUAL GROWTH	SALES GROWTH (1985-1989) PERCENT INCREASE	REVENUES ($000) 1989	REVENUES ($000) 1985
51.	**Canterbury Educational Services** (Medford, NJ)	**28**	Operates vocational schools & seminars	123%	2,387%	$10,021	$403
52.	**Vestro Foods** (Newport Beach, CA)	**39**	Mfrs. specialty foods	122	2,348	20,100	821
53.	**Entertainment Marketing** (Houston, TX)	**20**	Distr. computer peripherals & electronics	120	2,253	187,512	7,970
54.	**Octel Communications** (Milpitas, CA)	**2**	Mfrs. & mkts. voice processing systs.	120	2,252	87,179	3,707
55.	**HealthCare Compare** (Downers Grove, IL)		Implements health-care cost-mgmt. svcs.	120	2,223	31,458	1,354
56.	**Komag** (Milpitas, CA)		Mfrs. thin-film disks for Winchester drives	119	2,203	84,638	3,675
57.	**Action Staffing** (Tampa, FL)		Provides employee leasing svcs.	119	2,202	126,974	5,515
58.	**Supermail International** (Sacramento, CA)		Provides electronic transmission & financial svcs.	119	2,201	2,508^{c}	109
59.	**Infrasonics** (San Diego, CA)		Mfrs. hospital equipment	117	2,123	5,402	243
60.	**CyberOptics** (Minneapolis, MN)		Designs & mfrs. laser sensors & systs.	117	2,106	3,971	180
61.	**Universal Medical Buildings** (Milwaukee, WI)		Develops health-care facilities	116	2,090	78,000^{c}	3,561
62.	**USMX** (Lakewood, CO)		Explores & mines minerals	116	2,088	14,700^{c}	672
63.	**Centex Telemanagement** (San Francisco, CA)	**4**	Provides telecommunications mgmt. svcs.	115	2,042	82,829	3,867
64.	**Rainbow Technologies** (Irvine, CA)	**67**	Mfrs. software security devices	113	1,968	11,500^{c}	556
65.	**Calgene** (Davis, CA)	**78**	Produces agricultural biotechnology products	113	1,944	30,206	1,478
66.	**Everex Systems** (Fremont, CA)	**12**	Mfrs. personal computers	112	1,908	377,272	18,790
67.	**Amerihost Properties** (Des Plaines, IL)		Builds motels	110	1,852	6,559	336
68.	**Occup.-Urgent Care Health** (Sacramento, CA)	**79**	Provides medical cost-containment programs	110	1,851	17,868	916
69.	**Babbage's** (Dallas, TX)	**64**	Operates software franchise chain	110	1,843	58,750	3,024
70.	**CMS Enhancements** (Tustin, CA)	**15**	Produces data-storage devices & accessories	110	1,837	200,385	10,343
71.	**Kimmins Environmental Service** (Tampa, FL)	**98**	Provides environmental svcs.	109	1,806	107,226	5,627
72.	**Neeco** (Canton, MA)	**60**	Mkts. & sells PCs & computer products	109	1,803	180,313	9,475
73.	**Software Toolworks** (Chatsworth, CA)		Develops & produces software	108	1,761	11,800	634
74.	**Altera** (Santa Clara, CA)	**17**	Mfrs. & mkts. computer-aided eng. systs.	104	1,638	58,868	3,388
75.	**Catalina Lighting** (Miami, FL)	**96**	Designs, imports, & distr. lighting & ceiling fans	103	1,595	54,568	3,220
76.	**CNS** (Eden Prairie, MN)		Mfrs. & mkts. brain-wave monitoring systs	102	1,559	6,057	365
77.	**FranchiseIt** (Bohemia, NY)		Provides franchise consulting svcs.	101	1,526	3,999	246
78.	**Vitalink Communications** (Fremont, CA)		Mfrs. data communications products	100	1,512	57,164	3,546
79.	**Cash America Investments** (Fort Worth, TX)	**37**	Owns & operates pawnshops	100	1,498	87,565	5,479
80.	**Symbol Technologies** (Bohemia, NY)		Mfrs. laser to scan & process bar codes	100	1,497	222,346	13,927
81.	**Brite Voice Systems** (Wichita, KS)		Mfrs. voice response systs.	99	1,476	15,631	992
82.	**Pentech International** (Edison, NJ)	**10**	Mfrs. & mkts. drawing instruments	98	1,422	23,024	1,513
83.	**IDB Communications Group** (Culver City, CA)		Supplies satellite communications svcs.	97	1,415	59,474^{c}	3,926
84.	**Identix** (Sunnyvale, CA)		Mfrs. computerized verification terminals	97	1,410	1,872	124
85.	**Action Auto Rental** (Solon, OH)	**13**	Provides short-term auto rental svcs.	97	1,398	98,468	6,573
86.	**Environmental Diagnostics** (Burlington, NC)		Develops test for hazardous materials in foods	96	1,374	2,800^{c}	190
87.	**Comptronix** (Guntersville, AL)		Provides manufacturing svcs. to electronics cos.	96	1,364	42,420	2,898
88.	**EnClean** (Alvin, TX)		Provides environmental svcs.	94	1,319	37,300	2,628
89.	**Nationwide Cellular Service** (Valley Stream, NY)	**9**	Sells, rents, & svcs. cellular telephones	94	1,305	72,606	5,168
90.	**MicroEnergy** (Carol Stream, IL)		Mfrs. switching supplies	92	1,247	5,590	415
91.	**Magic Yrs. Child Care & Learn. Ctrs.** (Plains, PA)	**50**	Operates day-care centers	91	1,231	7,800^{c}	586
92.	**Verdix** (Chantilly, VA)		Mfrs. software tools	91	1,221	9,512	720
93.	**CCAir** (Charlotte, NC)		Provides regional airline svcs.	90	1,194	60,061	4,643
94.	**Candela Laser** (Wayland, MA)		Mfrs. lasers for medical & scientific applications	89	1,170	18,219	1,435
95.	**Vacation Publications** (Houston, TX)		Operates travel club/publishes magazine	89	1,165	2,568	203
96.	**One Price Clothing Stores** (Duncan, SC)	**16**	Operates chain of women's clothing stores	88	1,147	88,754	7,117
97.	**Silicon Graphics** (Mountain View, CA)	**55**	Mfrs. 3-D computer graphic systs.	87	1,124	263,776	21,546
98.	**First American Health Concepts** (Mesa, AZ)		Provides health-care cost-containment programs	86	1,096	2,476	207
99.	**Tech Data** (Clearwater, FL)	**68**	Distr. microcomputers & hardware products	86	1,090	246,729	20,734
100.	**Autodesk** (Sausalito, CA)	**31**	Mfrs. & mkts. drafting software	86	1,088	117,302	9,874

c company estimate i INC. estimate 9 nine-month figure 88 1988 figure NA not available

NET INCOME ($000)		NO. EMPLOYEES		YEAR FOUNDED	YEAR PUBLIC	NO. ACQUISITIONS	CEO	CEO SALARY	CEO FOUNDER	CEO EQUITY
1989	1985	1989	1985							
($621)	($19)	169	3	1981	1986	4	Stanton Pikus	$104,000	Y	23.0%
(168)[p]	(586)	180	16	1947	1965	2	Alfred Strogoff	150,000	N	10.0
(10,711)	100	280	30	1982	1985	0	Elias Zinn	84,000	Y	27.0
11,798	(3,332)	793	108	1982	1988	0	Robert Cohn	233,913	Y	3.0
1,948	(828)	474	20	1982	1987	1	James Smith	367,229	Y	4.9
(6.061)	(6.041)	1.331	125	1983	1987	1	Stephen Johnson	198,750	N	2.6
585	75	84	35	1984	1987	0	Lawrence Jones	201,601	Y	1.7
(886)	(302)	71	10	1979	1985	0	Christine Umbertino	80,000	N	5.0
(154)	(1,060)	74	12	1982	1984	0	Jim Hitchin	109,000	Y	8.1
472	12	30	4	1984	1987	0	Steven Case	95,000	Y	12.0
(3,369)[c]	768	135	40	1984	1984	0	Joseph W. Checota	200,000	Y	45.7
2,300[c]	(96)	64	15	1979	1980	1	Gregory Pusey (acting)	150,000	Y	34.0
7,018	(1,669)	290	70	1983	1987	1	Peter Howley	375,000	N	3.0
1,700[c]	(100)	54	5	1982	1987	0	Walter Straub	190,000	Y	13.0
(6,812)	(4,335)	280	92	1980	1986	4	Roger Salquist	183,365	N	2.1
21.251	904	1.945	111	1983	1987	4	Steve Hui	123,883	Y	7.2
7	(101)	17	5	1984	1985	0	Michael P. Holtz	90,000	N	2.9
3.625	(1.058)	270	42	1982	1984	1	James Cameron	144,000	Y	24.0
2.772	(557)	315	25	1983	1988	0	Gary Kusin	180.000	Y	8.6
4.804	120	515	60	1983	1986	3	Jim Farooquee	174.000	Y	12.6
3,860	103	1,000	150	1972	1986	0	Francis M. Williams	150,000	Y	70.0
6,236	565	397	51	1982	1986	1	Robert Crowell	275,000	Y	9.8
2,109	5	160	5	1980	1988	0	Leslie Crane	220,000	N	20.0
10,761	(4,473)	290	67	1983	1987	0	Rodney Smith	150,000	N	3.5
2,589	83	82	6	1974	1988	2	John Browder	314,000	N	1.5
(594)	(1.334)	58	20	1982	1987	0	Daniel Cohen	108.000	Y	9.0
(1.296)	(174)	95	5	1983	1984	3	Lawrence Costello	120.000	N	0.0
12.549	(1.102)	265	155	1980	1988	3	George Archuleta	195.215	N	3.8
7.002	157	600	30	1983	1987	98	Jack Daugherty	273.600	Y	4.0
18.967	518	1.800	152	1973	1980	0	Jerome Swartz	709.538[88]	Y	4.3[88]
2,804	(205)	95	6	1984	1989	0	Stanley Brannan	200,000	Y	31.4
2,940	53	10	6	1984	1985	0	Norman Melnick	200,000	Y	20.0
1,749[c]	703	285	30	1983	1986	3	Jeffrey Sudikoff	350,000	Y	26.0
(2,543)	(1,375)	40	20	1982	1985	3	Randy Fowler	114,000	Y	14.0
5.572	418	1,156	172	1984	1987	2	Craig Hons	125,000	Y	8.0
(2,500)	(1,898)	46	15	1983	1984	2	James Skinner	135.000	N	2.6
1,470	(274)	500	200	1984	1989	0	William Hebding	115,000	Y	11.3
598	210	1,000	100	1984	1989	2	Malcolm Waddell	120,000	Y	10.0
(7,817)	(812)	350	20	1984	1986	0	Stephen Katz	273,672	N	6.0
(687)	(1,796)	136	90	1983	1984	1	Robert Gatza	125,100	Y	19.5
(959)[j]	(137)	725	100	1983	1984	0	Mark Klein (acting)	NA	N	NA
1,491	(1,980)	78	40	1982	1983	0	E. Gary Clark	129,000	N	1.0
2,094	(2,401)	668	86	1984	1989	0	Roy Hagerty	90,000	Y	7.9
(3,820)	60	158	21	1970	1986	0	Horace Furumoto	115,000	Y	13.0
(218)	(246)	35	8	1983	1986	0	R. Alan Fox	76,500	Y	10.0
3,839	585	629	200	1984	1987	0	Henry D. Jacobs	254,182	Y	33.0
11,490	(4,833)	1,483	238	1981	1986	0	Edward McCracken	306,000	N	2.2
336	(183)	21	6	1981	1985	0	Joseph Kent Massey	60,000	N	8.5
7,861	511	426	79	1974	1986	1	Steven Raymund	250,000	N	26.5
32.695	1,626	576	130	1982	1985	4	Alvar Green	233,303	N	1.0

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Inc. 100

HOW THE INC. 100 ARE SELECTED

The 1990 INC. 100 is the 12th annual ranking of the 100 fastest-growing small publicly held companies in America.

Companies are ranked by the percentage increase in total revenues (or net sales) between 1985 and 1989. This year the chart (see page 38) shows both compound annual growth and the five-year growth figure.

■ To be considered for the INC. 100, each company must meet the following criteria:

1. The company is an independent corporation, not a subsidiary or division of another company. Regulated banks and utilities and holding companies are excluded.

2. The company was publicly held before the end of fiscal year 1989.

3. The company shows an operating/sales history of at least five years.

4. The company's 1989 revenues exceeded 1988 revenues. Companies with growth over the five-year period but a decline in 1989 revenues are excluded.

5. The company's 1985 revenues were at least $100,000 but not more than $25 million.

6. The company's stock was trading for at least $1 per share on March 1, 1990.

■ The INC. 100 research staff used company prospectuses, 10-Ks, and annual reports to maintain our database of publicly held smaller companies. Using audited financial statements, researchers then ranked the companies.

■ An editorial team led by special projects editor Sara Baer-Sinnott and assistant research editor Deborah L. Weeks selected the 1990 INC. 100. The research was conducted by researchers Susan Greco, Lisa D. Royal, and Tait Wardlaw, and intern Doug Schnitzspahn. Additional research was provided by interns Tara Crawford, Chris Forman, Steve Gongola, Amy Havel, Marika Holmgren, and Cinda Jones.

INC. 100 INDEX COMPANY NAME/SYMBOL/1990 RANK

Action Auto Rental (AXXN)	85
Action Staffing (ACTS)	57
Adobe Systems (ADBE)	45
Adtec (JAIL)	9
Aldus (ALDC)	33
Altera (ALTR)	74
American Power Conversion (APCC)	34
Amerihost Properties (HOST)	67
Autodesk (ACAD)	100
AutoInfo (AUTO)	38
Automobile Protection (APCO)	46
Babbage's (BBGS)	69
Blockbuster Entertainment (BV)	14
Brajdas (BRJS)	6
Brite Voice Systems (BVSI)	81
Cabletron Systems (CS)	23
Calgene (CGNE)	65
Candela Laser (CLZR)	94
Canterbury Educational Services (SKIL)	51
Cash America Investments (PWN)	79
Catalina Lighting (LTG)	75
CCAir (CCAR)	93
Cellcom (CLCM)	13
Centex Telemanagement (CNTX)	63
Cirrus Logic (CRUS)	4
CMS Enhancements (CME)	70
CNS (CNXS)	76
Communication Cable (CABL)	18
Comptronix (CMPX)	87
CyberOptics (CYBE)	60
Dallas Semiconductor (DSMI)	41
Dell Computer (DELL)	32
Digi International (DGII)	10
Digital Microwave (DMIC)	2
Dynatronics Laser (DYNT)	43
Egghead Discount Software (EGGS)	22
EnClean (ENCL)	88
Encore Computer (ENCC)	3
Entertainment Marketing (EM)	53
Environmental Diagnostics (EDIT)	86
Everex Systems (EVRX)	66
First American Health Concepts (FAHC)	98
FranchiseIt (FICO)	77
HealthCare Compare (HCCC)	55
Healthsouth Rehabilitation (HRC)	39
Hunter Environmental Services (HESI)	49
IDB Communications Group (IDBX)	83
Identix (IDXX)	84
Infrasonics (IFRA)	59
Intelligent Electronics (INEL)	27
International Broadcasting (IBCA)	44
Jean Philippe Fragrances (JEAN)	42
Kimmins Environmental Service (KEVN)	71
Komag (KMAG)	56
L.A. Gear (LA)	24
Magic Years Child Care & Learning Centers (KIDS)	91
Measurement Specialties (MMSS)	25
Medical Imaging Centers of America (MIKA)	11
Metro Mobile CTS (MMZA)	37
MicroEnergy (MCRE)	90
Molecular Biosystems (MOBI)	35
Nationwide Cellular Service (NCEL)	89
Neeco (NEEC)	72
Network Equipment Technologies (NWK)	1
NMR of America (NMRR)	40
Occupational-Urgent Care Health Systems (OUCH)	68
Octel Communications (OCTL)	54
One Price Clothing Stores (ONPR)	96
Oracle (ORCL)	50
Osicom Technologies (OSIC)	8
Oxford Energy (OEN)	7
Pentech International (PNTK)	82
Rainbow Technologies (RNBO)	64
Rally's (RLLY)	5
Random Access (RNDM)	15
Regency Cruises (SHIP)	48
Rocking Horse Childcare Centers of America (RHCC)	20
Selectronics (SELE)	26
Selvac (SLVC)	47
Sequent Computer Systems (SQNT)	36
Silicon Graphics (SGI)	97
Silk Greenhouse (SGHI)	31
Software Toolworks (TWRX)	73
Supermail International (SPML)	58
Surgical Laser Technologies (SLTI)	17
Symantec (SYMC)	30
Symbol Technologies (SBL)	80
SynOptics Communications (SNPX)	21
Tech Data (TECD)	99
Teradata (TDAT)	28
T^2 Medical (TSQM)	12
Universal Medical Buildings (UMB)	61
USMX (USMX)	62
Vacation Publications (VACP)	95
Vanguard Cellular Systems (VCELA)	29
Vencor (VCOR)	16
Verdix (VRDX)	92
Vestro Foods (VEST)	52
Vitalink Communications (VITA)	78
Zeos International (ZEOS)	19

Inc. 100

THE DARK SIDE

Will your worst fears about going public come true? INC. 100 CEOs address what your advisers won't talk about

BY JOSHUA HYATT

Nobody wants to talk about what it's really like. For a reason. Few entrepreneurial dreams are as seductive as the one about taking your company public. It promises riches and fame (or at least operating capital and marketplace recognition), not to mention the satisfactions of a mission accomplished.

But then there's the dark side.

What happens after the underwriter has held the closing dinner, after the road show has made its final stop, after investors have, you hope, oversubscribed? There you are, having crossed onto alien turf without a guide. You're public. Suddenly you're being interrogated by pointy-headed strangers, hemmed in by unfamiliar rules, cut off from opportunities you once took for granted. Your company is harder to recognize, and so are the threats to it. The feared result? You'll be out of control. Even if you're still the boss, the company you loved will be gone.

The fears are not farfetched—just check the business pages. Post a bad quarter, and Wall Street crawls all over you; post a couple more, and your own board crawls all over you. Takeover artists woo your shareholders if your stock price sinks (dragging your net worth down with it), and lawyers woo them if there's a misstep in your press releases. You fight back, of course, but all those arcane rules are dictating what you can say, when you can sell, whom you can talk to. And just when you think the trouble is dodged, some analyst gets hold of that confidential memo about the possibility of a $400,000 write-down. "I feel like a squirrel in a carousel," says George Archuleta, chief executive of Vitalink Communications Corp., public since 1988. "I just keep running."

Of course, a successful offering can still be the best way to raise a lot of capital. The benefits of going public are obvious and real. But so, unfortunately, are the consequences you're afraid of. Consider this: though more than half of the INC. 100's chief executives planned on going public from day one and should have been prepared for its effects, quite a few were surprised when their biggest fears came true. Their discoveries haven't prompted a flight from publicly traded life. But they have led the CEOs in the following pages to shout back across the gulf that separates private from public and describe the reality of the other side. They knew being public would be different, but like witnesses at a trial, they didn't grasp the power of the oath until they took the stand.

Below, testimony about the fears of managing in public—from CEOs who remember what being private was like.

I Won't Be an Entrepreneur Anymore

John Schinas doesn't want sympathy. But the president and CEO of **Digi International Inc.** (#10), a maker of data-communications equipment, does mourn the freedom he once had. "You can move on a lot of hunches when you are a private company," he explains. "Not that I regret being successful, but going public has put some constraints on us."

It didn't take long for Schinas to get the message. Within a month or two of going public last October, he approached his lawyers about an acquisition he had in mind. Hold everything, said the lawyers. The IPO prospectus doesn't provide a description of the proposed acquisition; you can't use the offering's proceeds to pursue it. "When you think you've got a good deal, and you can't make it," says Schinas, "it's frustrating."

For more than three months after the offering, Schinas's lawyers discouraged him from taking any action that had not been fully disclosed in the prospectus. Make any surprise moves with that money you've just raised, they warned, and it'll look like you misled investors about your plans. The likely result: class-action suits aplenty. "Who knows what opportunities came and went during that quiet time?" says Schinas. "As they came up, our lawyers would say, 'You can't consider those things at this time.'" Even now Schinas shelves new-product ideas almost as quickly as he comes up with them. "We discuss them at board meetings, then we put them on the back burner. Otherwise, shareholders would think we were reckless with their money," he says. "We take a lot more into consideration." Monthly board meetings have stretched from three-hour bull sessions to "deeper talks" lasting at least five hours.

If Schinas sounds like a man who'd be happier to appear on the INC. 500—our ranking of the fastest-growing private companies—he explains that going public was less the fulfillment of a personal dream than the consequence of a necessary vow. "There wasn't much choice for me, since I promised I would make my original shareholders liquid in three years," says the 52-year-old. "I wouldn't advise companies to go public unless they absolutely need the money, and that is the only way to raise it."

Still, he finds the level of accountability "much harder to deal with" than he expected. When he approached board members about needing more space, for instance, they questioned him intently about his proposal to buy a building that they felt was inappropriate for the company's needs. Eventually they encouraged him to lease space rather than end up, as so many fast growers do, in the real-estate business. "Forget about buying a lot of extras," says Schinas. "You get exactly what you need."

Not that he's complaining. "It's much easier to run a private company," he admits. "But we are where we are. There's no use thinking about it."

I'll Embarrass Myself on the Road Show

Here were his two choices, as Jeffrey Sudikoff saw them: come across as bland, or completely confuse everyone.

Either way, he wasn't likely to build much anticipation for **IDB Communications Group Inc.**'s (#83) offering in 1986. Like any chairman and CEO, Sudikoff wanted to price IDB's shares as high as possible. But he was having a hard time imagining how he could turn satellite-transmission services into a real spine tingler. "The Wall Street community wants to feel good about what it invests in. It wants to be hyped," says Sudikoff, 34. "But ours was a company that was very difficult to explain. Our technology is normally invisible."

Eager for ideas on livening up his road show, Sudikoff could think of only one way to help himself: watch other road shows. He asked his banker to inform him when companies were coming through town. He sat through three or four. "It was valuable to sit in the audience and listen to the way the buy-side people reacted," he says. "They perked up only at certain things. They really weren't interested in a lot of detail."

Sudikoff, on the other hand, didn't miss a nuance. Listen, he told his managers after sitting through one presentation, we've got to get some slides showing figures on the total market for data communications. Not that there was a reliable number—nor one that was even relevant to IDB's particular segment. "But *overall market size* was a buzzword, and they wanted to see a number," says Sudikoff. "Especially, they wanted to see a big number."

Sudikoff also learned the value of a gimmick that folksingers have exploited for eternity: audience participation. "I noticed you could sort of lead your audience to do some mathematics," he says. Tell them, for instance, the unit price, the number of units you could sell, and the price growth; then sit back and watch as they reach for their calculators to figure out the upside. "It was better than doing the math for them," he says. "Invariably, one would stand up and say, 'Well, according to those figures, the potential market would be such and such.' Then you say, 'Well, I haven't done the math, but I suppose it would work out that way.' It keeps them interested and entertained."

When he talked about IDB's relationship with *The Chicago Tribune*—"I only mentioned identifiable customers," he says—Sudikoff would trace all the work IDB has done; then let his

FIRST PERSON

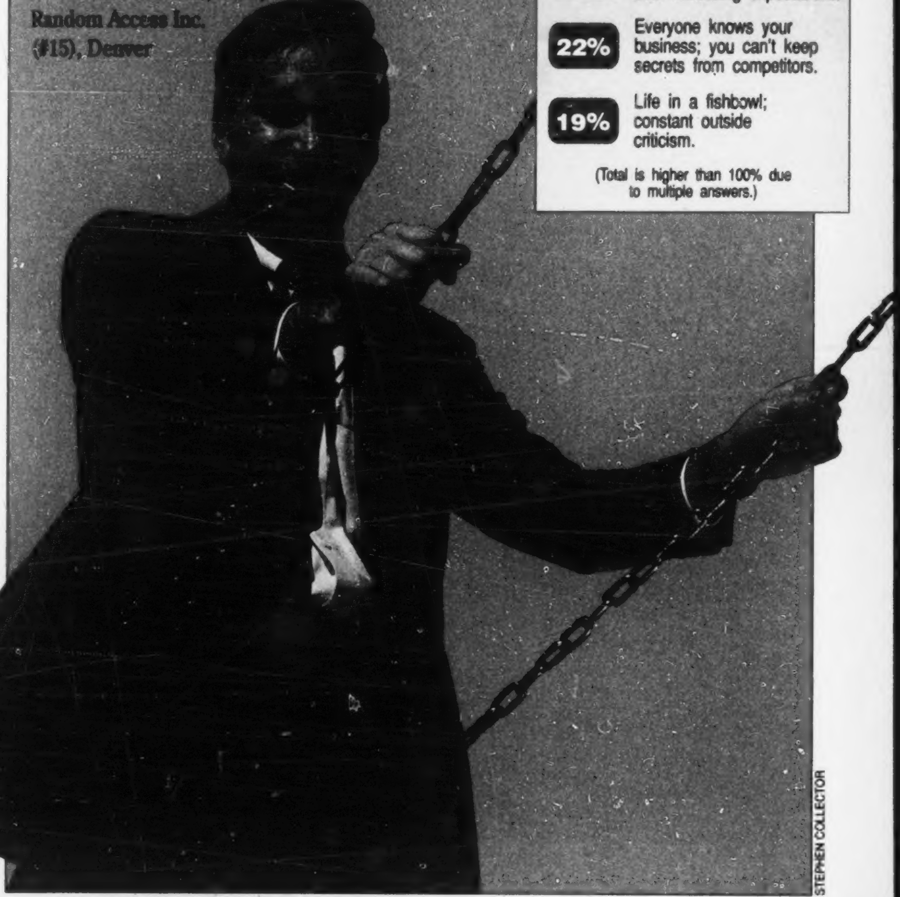
LIVING YOUR STOCK PRICE

"The first time we were listed on NASDAQ was very exciting. I went to a brokerage near my house and plugged in my stock symbol. There it was. I had purposely parked a long way away, and walking back to the car, I just had this big smile on my face. I had been a finance major in college, and I remembered sitting in one of my classes, with long hair, thinking, 'What I want to do someday is have my own public company.' Now, I could sit and calculate how each sixteenth-of-a-point move added another $200,000 to my net worth.

"That lasted about a day. Then everything else took hold. Last August we started working to do a bigger offering. By October three underwriters were ready to do a secondary, and my wife and son and I decided, 'Let's take a half day on Friday and go to Aspen and relax a little bit.' We were listening to the news when the market started plunging. I called my underwriter. 'It's brutal,' he said. On Monday our stock went down half a point. I got the calculator out and figured my net worth had just dropped almost $1.5 million in a day. I was pretty down.

"I got over it. This was only a minicrash. I think it must be very depressing to see your $6 million go to $2 million in a week's time, which I knew happened to a lot of people. When you're succeeding as a public company, you feel like you're living the American dream. But if you can't learn to live with the swings, they will drive you nuts."

—Bruce Milliken, CEO,
Random Access Inc.
(#15), Denver



STEPHEN COLLECTOR

THE BAD NEWS

What's the downside to being public?

According to INC. CEOs who answered the question, the most troubling consequences are:

42%	Cost in time and money of dealing with Wall Street and shareholders.
30%	Emphasis on short-term results, plus ever-increasing expectations.
22%	Everyone knows your business; you can't keep secrets from competitors.
19%	Life in a fishbowl; constant outside criticism.

(Total is higher than 100% due to multiple answers.)

audience take it a step further. "In the future," he'd say, "we hope to be involved in their other newspapers—what's the one they own in New York?" Came the reply, "*The Daily News.*" Sound manipulative? "Rapport matters," says Sudikoff.

The more Sudikoff watched, the more he became convinced that the potential investors really wanted the old soft shoe. "Going in, I might have thought I was going to meet a bunch of rich experts on everything," he says. "What you learn is that they know very little about a lot of things. To some extent, you have to be able to reduce what you do to the lowest common denominator."

To do that, Sudikoff's own presentation focused less on the technology and more on its applications. He talks about how the company provided for the transmission of "Monday Night Football" and thousands of baseball games—"people in the Wall Street community are also the people who pay attention to professional sports," he says. And he never forgot to mention that IDB circuits transmitted former President Ronald Reagan's radio speeches from his ranch. It was an IDB technician, in fact, who cued Reagan to test his microphone, only to have the president make that now-infamous jest about bombing the Russians.

Not that Sudikoff shied away from serious questions. Along with his banker, who is a former trial attorney, Sudikoff reviewed more than 100 questions likely to be asked while he was on the road. The only surprise came overseas, in Edinburgh, when a potential investor, during a discussion of tax reform's effects on IDB, asked whether evangelist Pat Robertson would get the Republican nomination for president.

Hitting Europe first was part of his strategy. Outside the United States it's permissible for companies making IPOs to offer projections—and who's to stop those numbers from floating back? "I saw it happen. I'd be with the buy siders, and they'd say, 'We talked to people in London who said your market projections are such and such. Can you confirm?' " Of course not. "All you can imply is, Well, if they said it, it must be true."

Sudikoff contends that this is neither cagey nor superficial, but rather in keeping with the atmosphere on Wall Street. "The decision to pitch with bits and bytes instead of Fred and Ginger will hurt your valuation," he says. "Maybe that's sad. But it shouldn't be surprising." The company's stock, he adds, came out and rose uninterruptedly for six months after the road show, and subsequent presentations have buoyed it further. Even as the market was plummeting on the Friday before 1987's Black Monday, IDB's stock rose more than a point, thanks to an appearance Sudikoff made in San Francisco, he claims. "Most investors don't have the time to listen to all the Jeffrey Sudikoffs in great detail," he says. "They watch you; then they go on to the next deal. Mostly, they are betting on jockeys."

(continued)

FIRST PERSON

BELIEVE IN ME

"When I told people I planned to take my 37 pawnshops public, they told me I was crazy. They just kind of snickered.

"I know pawnshops have a bad reputation left over from the Depression, so we made sure our merchandise was well displayed, our stores departmentalized, brightly lit, and clean. We had nice signs and good locations. Our managers wore ties and were clean shaven. Until we got the company profitable, we didn't have time to work on polishing our image any more than that. Right before we went public, we started working on the image. We don't have a PR staff and we never needed one.

"I just told my story. I let people know we had nothing to hide. With the media, you get one person interested and it's like an avalanche. An investment banker who had seen our prospectus called and said, 'You've got a lot of nerve taking pawnshops public.' And *Forbes* ran a blurb expressing disbelief about our IPO and called it 'Profit from Misery.' Our chief financial officer, Clifton Morris, wrote to the magazine saying, 'Don't have contempt prior to investigation.' The magazine printed the letter and later wrote something very positive.

"Soon it seemed like every time I picked up the phone, someone would say, 'I never heard of a pawnshop going public before.' So I'd invite them to come take a look. In our first two years as a public company, we were written up in *Fortune, Newsweek, Esquire,* and *Business Week,* and we were on the three major networks and CNN. They come down here and they see we're not guys with garters around our arms and eyeshades. It's a contagious situation.

"Now, some newspaper or TV station calls us every quarter. The publicity has been distracting, but it has helped in our quest to overcome that negative image. We've taken the time to properly explain things and make our point. That's why I've taken the time to talk to you today."

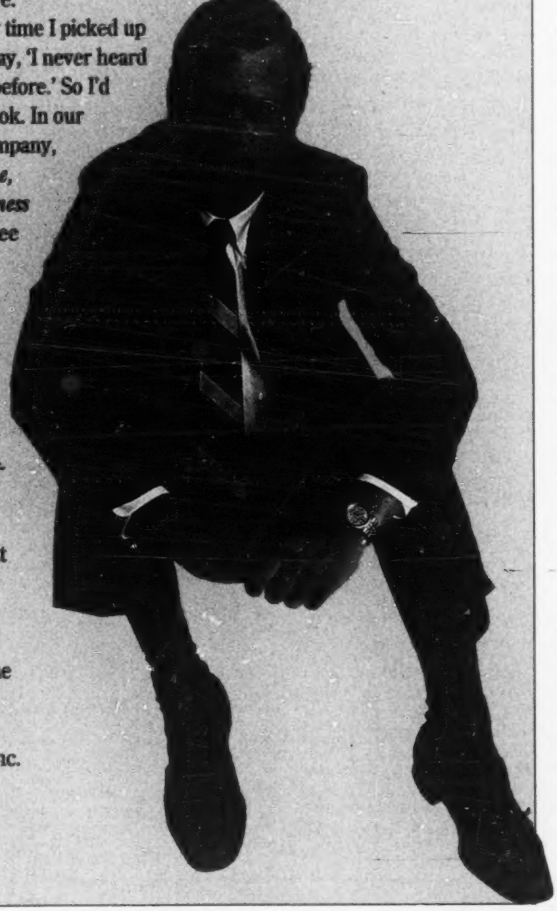
—Jack Daugherty, CEO, Cash America Investments Inc. (#79), Fort Worth

THE GOOD NEWS

What are the benefits of being public?
According to INC. 100 respondents:

54%	Enhanced credibility with customers, suppliers, banks, and so forth.
29%	More visibility.
28%	Increased options for future financing.
18%	Better employee moral and productivity.
18%	Improved attractiveness to recruits.

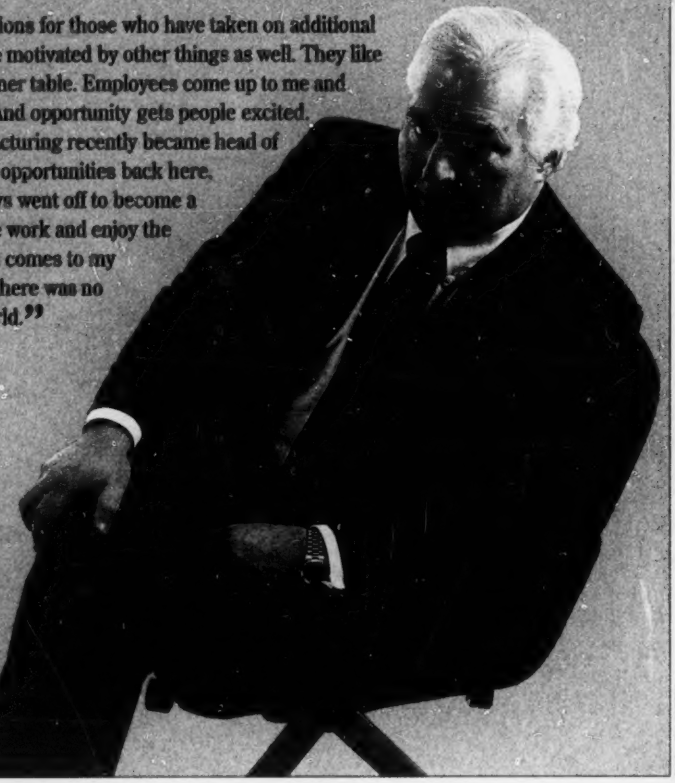
(Total is higher than 100% due to multiple answers.)



DAN BRYANT

FIRST PERSON

AFTER THE SCORE


BOB HOLMGREN

"We went public with 101 employees, and we made 11 millionaires. There are more than 30 now. The first few weeks, people ran around and looked at each other and said, 'He's a millionaire.' Then the whole thing passed. Every once in a while some new hire will come in thinking the founders are made of gold. Then they see that nobody here is driving a Rolls-Royce. We got back to work pretty quickly.

"Every year we motivate by layering in additional stock options for those who have taken on additional responsibilities and made larger contributions, but people are motivated by other things as well. They like hearing about the company in the press or at somebody's dinner table. Employees come up to me and say, 'My father-in-law read about us in the top 10 so-and-so.' And opportunity gets people excited. We move a lot of people around. Our vice-president of manufacturing recently became head of Asian operations. That opens up new things for him and new opportunities back here.

"Of course, we have lost some people. One of our early guys went off to become a college professor; one woman became ill and decided to leave work and enjoy the rest of her life. The thought of leaving and lying on the beach comes to my mind, but it doesn't stay long. I believed in this market when there was no market; keeping myself excited is the easiest thing in the world."

—William Gibson, CEO, Digital Microwave Corp. (#2), San Jose, Calif.

LEARNING CURVE

Has the IPO and your experience as CEO of a public company made you a better manager?

Eighty percent of INC. 100 respondents think so for various reasons, the most common among them being:

- "I'm more disciplined, efficient, and focused."
- "I have more financial savvy."
- "I'm a better communicator."
- "I'm more analytical and consider more perspectives when making decisions, and I take more time."

I'll Be Forced to Live Quarter-to-Quarter

George Archuleta didn't think of his plan for an off-site executive strategy session as risky or grandiose. It was just the kind of exercise that managers of growing companies needed to engage in from time to time. We'll get away for a few days, he figured, and toss around ideas about **Vitalink Communications Corp.**'s (#78) future.

For the CEO of a public company, Archuleta was taking a lot for granted—much more than he realized. Before he even got around to packing his bags for the March meeting, Vitalink's stock price had started to creep downward, from $20 per share to $18 to $15 and finally to $12. As adjudged by Wall Street, sales for the first quarter of calendar 1990 were roughly $1 million behind expectations. One by one, the chartists ordered their followers to sell their stock in Vitalink, which makes and markets data-communications products. That mentality developed its own momentum, speeding the decline into a downward spiral.

"It's such a knee-jerk reaction," says Archuleta. "It's mind-boggling." One thing was clear, though: Archuleta and his managers couldn't go on their retreat. With much regret, he postponed the planning meeting—a graphic illustration of how they had all become prisoners of the market's myopia. "We needed to get everybody working on getting some business in the door," he says. "You have to try to produce the best numbers you can. It's unfair."

Not that the 57-year-old Archuleta is naïve. Before going public in 1988, he had been warned about the constant pressure to nudge the stock price northward. "I thought I'd have to make presentations periodically and take a few calls from investors," he says. "I guess I knew what the game would be. But it's a lot worse than I thought."

Being public, Archuleta says, not only has changed the atmosphere in which the company operates, but also has reshaped the company itself. "You actually make decisions differently," he says. In developing products, for instance, Archuleta has had to change his priorities, focusing on those that maximize quarter-to-quarter sales growth. Reluctantly, he has needed to forgo—or delay—products that he felt held strategic importance or rounded out Vitalink's identity. "The more strategic ones lose out to the big-margin producers," he says glumly. "You can't build your company as well as you'd like."

That's partly because Archuleta has to spend so much time dealing with shareholders. "Being public has a major impact on the CEO's time," he says. "Day-to-day operations suffer from my not being here. I don't accomplish a lot of the things I want to." No sooner has one quarter wound down than calls start trickling in about the next one. One day Archuleta returned to his office to find a pile of phone messages 61 deep, mostly from stockholders and analysts. How are things looking? What kind of quarter is this shaping up to be? During a ragged quarter, such as the first quarter of 1990, the voices on the phone can get ugly. "I need to speak to your CEO right away, or there won't be any switchboard or any company," one caller yelled. "I'll flush this company down the drain."

Archuleta still finds it hard to take. "When they start losing money, they get panicky," he says. "Until you deal with it, you don't realize how serious it all is."

(continued)

Or how time-consuming. On a recent night Archuleta toiled until midnight, faxing information to shareholders. During his days as CEO of a private company, he took up to 30 vacation days. In 1989 he snuck away for 4 days. He gets to work at 6:00 a.m., leaves at 6:00 p.m., and spends his hour commute on the phone with shareholders. "Being public is exhausting," he says. "It consumes you."

Not that he ever had much choice about it. As a venture-backed company, Vitalink was born knowing what it would be when it grew up. Archuleta certainly doesn't begrudge the $44 million the company has raised. But he does resent having to kibosh his already-limited long-range planning efforts when the stock goes down $5. "I'm sitting on all sorts of strategic decisions, and that's unfair to me," he complains. "Those of us who build companies want to build solid long-term companies. Here, you've got a growth curve you've got to satisfy."

My Prospectus Will Be Used Against Me

Michael Hackworth was livid. "Wait just a second," he ordered his attorneys. "You mean we have to tell them that, too?"

Only a month away from shuttling **Cirrus Logic Inc.**'s (#4) prospectus off to the printer, the president and CEO was reviewing the information the company, which makes integrated circuits, would have to release. "Do we really have to tell the world who our major accounts are?" he asked. Yes, they nodded. "And we're required to let them know what percentage of sales each product line represents?" Uh-huh. He flipped to another page. "Why are we giving away our long-term strategy?" he cried. Silence. "Forget it. I can't go through with this."

In the midst of the ensuing confrontation—"It's like opening up your family's checkbook to everybody"—his lawyers suggested that Hackworth read other prospectuses. In browsing through them, he admits, "I saw that was just the way it was."

Not that his fears were unfounded. Two hours after finishing his road show in San Francisco, for instance, he got a call from one of his customers. "We need to talk about your margins and our margins," the customer demanded. And that was just the first of many "emotional conversations," Hackworth reports. Customers, he discovered, didn't cotton to the notion that a supplier's profitability should be higher than theirs. Some brought it up in half jest. Negotiating a price for a part, they might mutter, "Gee, you guys are so profitable, you can afford to take some percentage points off." Hackworth's counterargument: "It's irrelevant. The profitability of a customer is determined by the conditions of the marketplace. The supplier's margins have to do with how competitive it is against other solutions."

Competitors, too, panned the prospectus for incriminating nuggets. One of them, delighted to find that one product line repre-

FIRST PERSON

CRASH COURSE

"We were within a couple of weeks of filing when the stock market crashed. I was visiting customers and one of them said, 'Hey, did you know the stock market dropped 500 points?' It was, to say the least, disconcerting. It took about three nanoseconds to decide that we ought to pull out. I had announced our plan to go public a month before at a company meeting. 'Why would we *not* go public?' someone had asked. I told them, 'The only thing that could really change our plans would be if the stock market crashed or if Britain invaded Iran.'

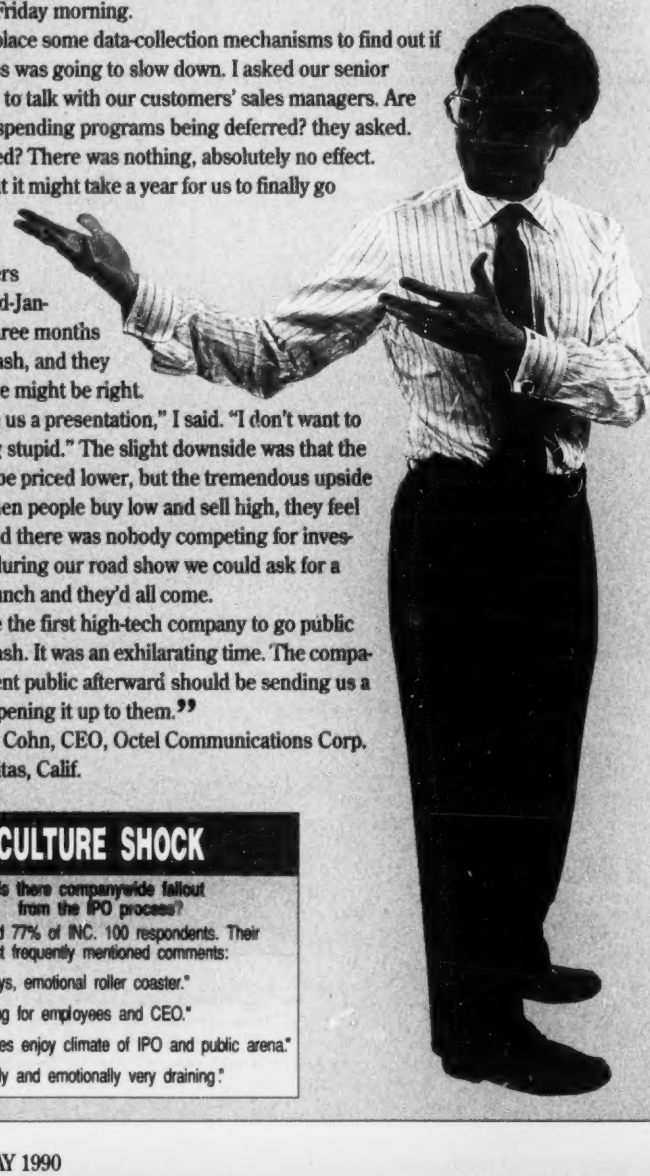
"Back at the company on Black Monday you could feel the emotional deflation. The press made the average consumer very nervous. Employees kept asking, 'What does this mean to me personally? How does this affect the company? Should I take all of my money out of the bank?' Very quickly, I started reading about the Crash of 1929, so I could explain what was happening—to employees and to myself. I talked to a couple of economists. I talked to an investment banker who is also a Rhodes scholar. Everybody was at a loss to explain it; consumer confidence is a very complex thing. As I started to get an understanding, I made company presentations. We had meetings every Friday morning.

"I put in place some data-collection mechanisms to find out if our business was going to slow down. I asked our senior salespeople to talk with our customers' sales managers. Are any capital-spending programs being deferred? they asked. Any canceled? There was nothing, absolutely no effect.

"I thought it might take a year for us to finally go public. But the investment bankers called in mid-January, just three months after the crash, and they said the time might be right. "Come give us a presentation," I said. "I don't want to do anything stupid." The slight downside was that the IPO would be priced lower, but the tremendous upside was that when people buy low and sell high, they feel positive. And there was nobody competing for investors' time; during our road show we could ask for a four-hour lunch and they'd all come.

"We were the first high-tech company to go public after the crash. It was an exhilarating time. The companies that went public afterward should be sending us a check for opening it up to them."

—Robert Cohn, CEO, Octel Communications Corp. (#54), Milpitas, Calif.



BOB HOLMGREN

CULTURE SHOCK

Is there companywide fallout from the IPO process?

Yes, said 77% of INC. 100 respondents. Their most frequently mentioned comments:

- "Long days, emotional roller coaster."
- "Motivating for employees and CEO."
- "Employees enjoy climate of IPO and public arena."
- "Physically and emotionally very draining."

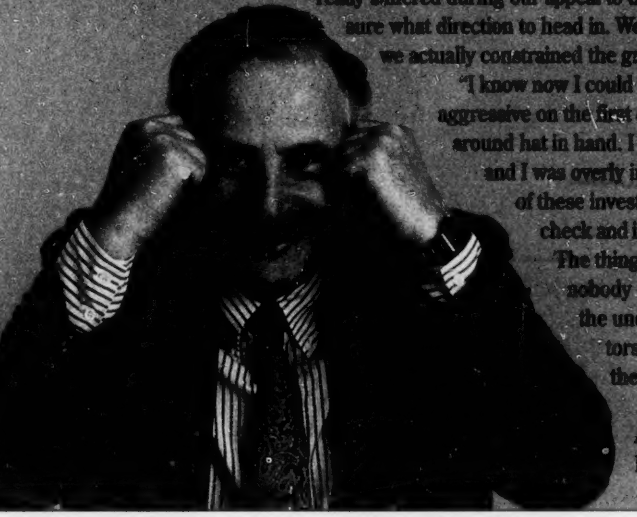
FIRST PERSON

SECOND TIME AROUND

“We raised money twice, first in May 1986, then in August 1987. Raising public money is much smoother the second time around. I'll bet it'll get even easier if we go for a third.

“The first time, investors are enamored of the sizzle; they get to believe you are heading for the moon. The second time you attract a different kind of investor, a professional, sophisticated investor who deals with larger sums of money. They are mostly interested in forecasting and in your growth pattern. I could tell that the people who saw me the first time were thinking, Who is this huckster? I was a loose cannon and I was firing rapidly. The attorney used to pound me over the head and say, ‘No projections.’

“By the time we went back, though, we were a public company with fiduciary responsibilities. The investors figured that if I said I needed the money for an acquisition, they could believe me. And we didn't get distracted by the process. The first time, our business really suffered during our appeal to the public. When we finally got the money, we weren't sure what direction to head in. We had spent so much time trying to be good children that we actually constrained the growth of the business.



“I know now I could have been much more aggressive on the first offering. I went around hat in hand. I was unsure of myself, and I was overly impressed with the ability of these investment bankers to write a check and instantly change your life. The thing about going public is nobody is doing you a favor. Not the underwriters, not the investors. Everybody needs to do these deals.”

—Jason Bacher, CEO,
AutoInfo Inc. (#38),
Maywood, N.J.

WE RECOMMEND...

Any tips for IPO-bound CEOs based on your experience?

Advice from INC. 100 respondents:

- Before going public, run your company as if it already is.
- Make sure you have a management team capable of taking over operations for six months.
- Tell your company's story simply and honestly; be totally up-front.
- Don't go public until your business is mature enough to produce consistent quarterly results.
- Evaluate a potential IPO as you would any other financing option; don't overglamourize it; look beyond liquidity.

sented 70% of the company's revenues, derided Cirrus as a one-product company that wasn't serious about some of its customers. “It created an issue our salespeople had to deal with,” says Hackworth with a sigh.

When competitors and customers run out of ammunition, Wall Street analysts are always ready to rearm them. “They are out there digging, and that's something you have to deal with on an ongoing basis,” Hackworth says. “We've probably had nearly a dozen reports on the company, and I've absolutely had moments of shock reading them.”

The experience has been instructive—to say the least. “I understand what going public really means,” says the 49-year-old. “It doesn't just mean that securities will be held by public shareholders instead of private ones. It means going public with a great deal of information. It's easy to underestimate the amount or detail that will come out.”

I'll Become the Target of a Hostile Takeover

On paper, **International Broadcasting Corp.** (#44) may sound like the ultimate in harmless—even old-fashioned—enterprises.

But on Wall Street, even a company that counts the Harlem Globetrotters, the Ice Capades, and several amusement parks among its holdings can become just another undervalued stock. That makes it subject to some hard realities. “Any public company knows that what happened to us is always a possibility, and you have to be prepared,” says Thomas K. Scallen, president and CEO. “But when you're trying to build a business, you can't help but resent it.”

About a year ago Scallen noticed that IBC's stock was trading heavily. “You watch it, and you think, OK, now what's going on?” recalls Scallen. Soon he was informed that J&T Investors, an Atlanta group, was attempting a takeover of IBC. “The whole thing was just a wonderment,” says Scallen, 62.

Huddling with directors and lawyers, Scallen reviewed the offer and decided it was not in the company's interest. Last June, J&T's two principals attended the company's annual meeting. Introducing them from the podium, Scallen asked them to stand. As they did, a process server handed them legal papers. “Why did we do it like that? We're in the entertainment business,” notes Scallen, whose suit claims that J&T was misleading in its attempts to buy the company and manipulated the stock price. “We don't think they acted properly.” J&T has filed a countersuit against the company, Scallen, and some of his board members.

The stock hasn't been the only thing gyrating wildly. As the takeover proceeded, employees began bouncing off the walls. “The jungle drums are beating, and everyone's worried,” Scallen says. “ ‘What's going to happen to this company?’ they want to know. ‘What's going to happen to my job?’ It's hard on them. What hurts the company is the fear they go through.” Worse, they sometimes act on it: one prospective hire said he would come aboard only with a two-year contract.

To calm them, Scallen has made sure everybody has been kept up-to-date. “We kept everybody informed about what was going on and what the board's view was,” he says. “Still, it scares the heck out of them. You spend a lot of time and pay lawyers a lot of fees.” Because Scallen has taken a company public before, IBC is not as vulnerable as it might have been. The company, for instance, has a supermajority clause in its articles of incorporation; 80% of the shareholders must approve any sale or merger. “As a public company, you have to plan for this,” he says. “There are several steps you can take.”

But alas, nothing is foolproof. In early March, even as Scallen was awaiting a trial date to be named, he noticed IBC stock was “trading like crazy, so it looks like somebody has the same idea as before.” As of mid-month, he reported, “I'm in the waiting stages again. All I can do is wait.” Then he sighed, quickly adding, “In a way, it vindicates our judgment about the opportunities we see. I guess it's just part of being public.” ❑

PHOTO: PETER VIDOR

HANDS ON

A Manager's Notebook

FINANCIAL STRATEGIES

LESS FILLING, SELLS GREAT

When a large corporate customer tries to throw its weight around on a purchase, ordering, say, 10 truckloads of goods with 120-day terms, it can send a small company's budgets and cash flow into chaos. Jim Anthony, CEO of Delta Technology International, a software company in Eau Claire, Wis., talks his customers into buying less—at least for the short term.

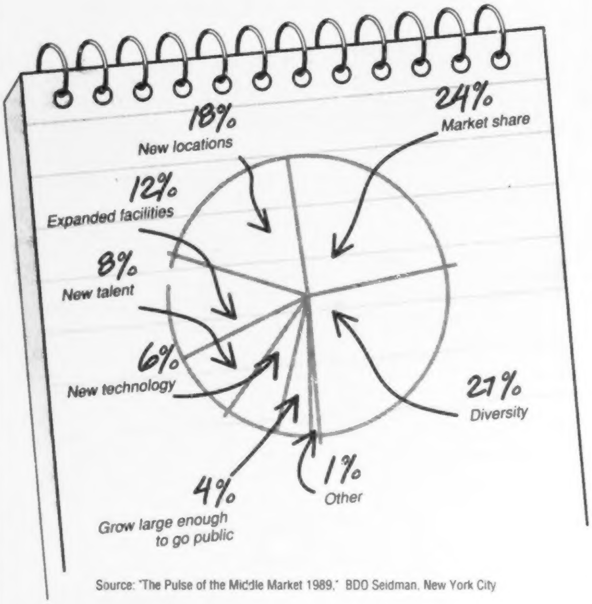
When Delta's salespeople make a call on a prospective customer, they recommend that a buyer test five or six copies of its software to get acquainted with the program and then equip one department at a time. By selling amounts that the large company's buyer can personally sign off on, Delta avoids the problems of receiving unsigned purchase orders or having to wait for decisions to be made at committee meetings, which can drag out and even kill deals.

Seven-year-old Delta's $99 menu-system software program, called Direct Access, ranked in the top 20 of corporate titles on a 1989 industry best-seller list, so the strategy appears to work. "And without the accompanying headaches," says Anthony. ❏

STRATEGIC PLANNING

ACQUIRING MINDS

Of 1,873 active owners of companies with annual revenues of $2 million to $100 million, 53% would like to acquire another company in three to five years for one of these reasons:



Source: "The Pulse of the Middle Market 1989," BDO Seidman, New York City

ADVERTISING

NUTS AND BOLTS

Advertising executives may scoff at the idea, but there's a good reason why New Pig Corp. puts a picture of its factory in its sales brochure. At a weekly sales meeting, New Pig's in-house sales force reported that competitors' salespeople were besmirching New Pig's reputation.

"Somebody said we were a two-bit operation importing from Mexico," recalls one employee of this manufacturer of oil-absorbent socks for heavy machinery. Others had similar stories to share.

"We'll show them who has the biggest smokestack in town," figured founder and chairman Don Beaver. He decided to quiet skeptics by including a picture in the sales brochure of the New Pig factory in Altoona, Pa., where the five-year-old company's 170-some employees work.

Today prospective customers have little doubt about $18-million New Pig's stature. ❏

MARKETING

A MOVING PICTURE IS WORTH . . .

You can spend thousands on a direct-mail campaign only to find you've filled more wastebaskets than orders. Polymer Plastics Corp., a company based in Mountain View, Calif., that sells printer circuit-board products, found a way to bypass the circular file. "If customers got a videotape in the mail, I figured they were going to have to look at it," says CEO Larry Stock. "Curiosity alone was going to kill them."

They don't just look. Stock estimates that when video catalogs accompany the paper catalogs, they generate 20 times the response of paper catalogs sent alone. After the videotapes were introduced, stagnant sales of one product line leaped from $10,000 a month to more than $20,000. Sales for Polymer's products have tripled to $2.3 million in the two years since the company started sending out the video catalogs.

Stock targeted the videos at customers, but "it's a real benefit to distributors, too," he says. Because the tapes demonstrate how to use the products, they serve as a sales and training tool that distributors can use in customer calls. ❏

RECRUITING

CUSTOMER PROSPECTS

Shopsmith Inc., a $43-million Dayton manufacturer of woodworking equipment, may just have found the solution to the age-old problem of finding good employees who are knowledgeable about its products.

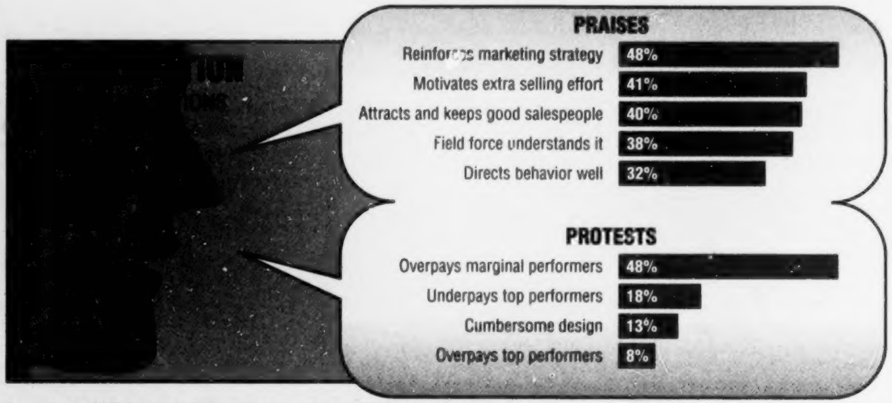
If a position opens up at one of its retail outlets or when it needs to hire staff for a new-store launch—the company has opened one store a month over the past three years—Shopsmith sends letters and postcards to local customers announcing it is looking for managers and part-time help.

The average direct-mail campaign to 3,000 customers costs at least 30% less than a classified ad in a local newspaper. It's been so successful that Shopsmith has stopped using classified ads altogether in some markets.

"It's the rifle versus the shotgun approach," as advertising director Perry Martin puts it. He reports that Shopsmith has found virtually all its part-time woodworkers and a handful of managers through the two-year-old campaign. For Shopsmith's loyal customers who sign on, says Martin, "it's their dream job." ❏

CHARTS: ELIOT BERGMAN

HANDS ON



Source: Survey of INC. Growing the Company Conference attendees: 234 executives of companies with average annual revenues of $16.1 million and an average of 11 sales employees, by Hewitt Associates, Lincolnshire, Ill., January 1990

COMMUNICATIONS

LET'S DO LUNCH

As SynOptics Communications, a supplier of computer-networking systems, grew from 11 to 425 employees over four years, communications problems among the company's five functional groups grew just as fast. So CEO Andrew Ludwick began the "staff-to-staff brown-bag lunch."

The idea for the lunch meetings came after a manufacturing line supervisor complained that a new circuit board took much too long to assemble. Ludwick sat the supervisor and an engineer down at the same table to figure out how they could work together to make the product easier to assemble. By replacing a part on the board with a smaller, cheaper part, they determined, the board could be assembled much more quickly.

Now, each quarter the company buys lunch for two related divisions. All the key people from both divisions sit down together at five tables in the company's Mountain View, Calif., headquarters. Each table is assigned a problem that it must solve over lunch and then present the results to the rest of the group.

"On a superficial level, we are simply solving problems," says Ludwick. "But we are also creating chemistry among all our employees." ❑

TRAINING

BACK TO THE BASICS

An employee reading at a snail's pace is a mighty inefficient worker, says J. W. Kisling, CEO of Multiplex Co., a Ballwin, Mo., manufacturer of automatic beverage dispensers. So Kisling, who was once a slow reader, invested in a speed-reading course for his employees.

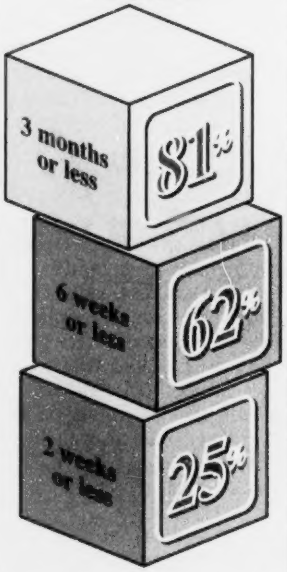
For six weeks 40 of his 200 employees from the office and factory met for three hours of instruction twice a week—from 7 a.m. to 10 a.m. Reading rates went up at least 50%, and comprehension rates for most students increased 50%.

The course was offered to all employees. Those who read volumes of material in a typical day's work and have to glean important information quickly have found it especially helpful. "You don't have to do arithmetic to see that this makes sense," says Kisling, who paid $6,000 for the course. ❑

BENEFITS

PAID PARENTAL LEAVE

How long an absence do you think employers should pay for?



Source: "Public Attitudes on Parental Leave," survey of 530 consumers conducted by the Gallup Organization Inc. for Employee Benefit Research Institute, November 1989

CUSTOMER SERVICE

CUSTOMER AS PARTNER

Even if you've developed a wonderful retail consumer product and have positive results from focus groups and test markets, if buyers for the nation's retailers aren't convinced, you're never going to get on the shelf. Norman Melnick, chairman of Pentech International, a maker of inexpensive writing and drawing implements based in Edison, N.J., convinces the buyers by turning them into his partners.

Before going into production, Melnick talks with buyers and lets them shape the final product. If they want his pens to come in a 16-pack as opposed to an 8-pack, he'll do it. They think the package takes up too much space on the shelf? No problem. The packaging will shrink. Buyers become part of the manufacturing and marketing process and develop a vested interest in the product's success.

And Melnick, whose company now sells $23 million worth of products a year, makes them put their company's money where their advice is. "Pentech does not produce an item without an order in hand," he says. ❑

ENVIRONMENT

A CHARGE FOR THE GOOD

Environmental conservation efforts typically require two already endangered resources: your money and your time. Not so with an environmental conservation organization's "affinity" credit card, a joint venture between the banking institution offering the card and the nonprofit that markets it. A small percentage of the fee a bank collects on every transaction—and, in some cases, a percentage of the annual fee as well—is funneled into a nonprofit environmental organization.

Here are some environmental groups that have affinity cards your business could use. For applications and information on annual fees and percentage rates, call: American Rivers Inc., (202) 547-6900; National Audubon Society, (800) 445-1336; National Wildlife Federation, (800) 432-6564; The Nature Conservancy, (800) 628-6860; Sierra Club, (415) 776-2211 ext. 5653 (members only); and World Wildlife Fund, (800) 441-7011. ❑

(HANDS ON continued)

HANDS ON

MANAGING PEOPLE

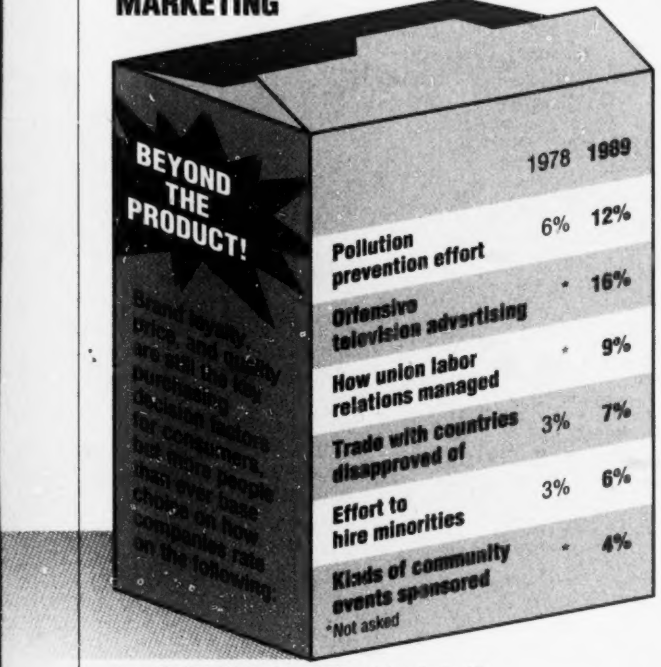
FORK IT OVER

Most CEOs appreciate the management value of personally handing out the paychecks. "It's a symbolic act to make sure everybody understands that their work is important," says Thomas Melohn, president of North American Tool & Die Inc., a $20-million company based in San Leandro, Calif.

But Melohn goes even further. About two or three times a year, at a monthly companywide meeting, he asks employees to hand out one another's paychecks. Soon, says Melohn, "the place starts to look like a church social," with some employees meeting for the first time as they hand out pay.

"It reinforces that we're in it together, we're family, and there are no walls," he says. ❑

MARKETING



Brand loyalty, price, and quality are still the key purchasing decision factors for consumers, but more people than ever base choice on how companies rate on the following:

	1978	1989
Pollution prevention effort	6%	12%
Offensive television advertising	*	16%
How union labor relations managed	*	9%
Trade with countries disapproved of	3%	7%
Effort to hire minorities	3%	6%
Kinds of community events sponsored	*	4%

*Not asked

Source: "The Public Pulse," a survey of 2,000 people from all walks of life. The Roper Organization Inc., New York City, January 1990

TRAVEL AND ENTERTAINMENT

MONEY-BACK SERVICE

If your company's airfare bill isn't fat enough to rate a corporate discount, there is another way to trim it. Travel Avenue in Chicago is one of several services that charge a flat fee on every ticket sold and rebates the usual airline commission—which can be 8% to 25% of ticket price—to the customer. This rate structure eliminates the incentive for travel agents to try to sell more expensive tickets to air travelers.

This discount house also cultivates long-term small-business clients by invoicing monthly and keeping credit-card numbers on file for easy billing. ❑

ON THE CHEAP

COMPUTER SECURITY

By Cary Lu

BRUCE SANDERS

The media run rampant with stories of cracked computer files and corporate espionage. So why do people think nothing of leaving electronic versions of sensitive documents on a hard disk drive, readily accessible to anyone who sits down at the computer and types a few commands?

There is a simple, low-cost method to keep your sensitive computer documents confidential. Store them on floppy disks instead of on your hard disk. Then treat those floppies as you would confidential paper documents—lock them up when you aren't using them. The disadvantages of floppies—slower operation and lower capacity than hard disks—are a small price to pay for security and privacy.

After you've moved the sensitive files from your hard disk to the floppies, you should erase them from the hard disk. Simply deleting files doesn't actually remove the data from a hard disk. The information is still there; only a directory entry is changed. To actually erase the data, you need to use a utility program such as PC Tools Deluxe from Central Point Software Inc. for the IBM PC and clones; MacTools Deluxe, also from Central Point; or Symantec Corp.'s SUM II for the Macintosh.

If you don't have access to utility software, then you should change or garble the contents of your sensitive file on the hard disk after you've copied it to a floppy disk. If your program makes a backup file automatically, then you'll want to garble the backup file as well by making an additional change to the saved garbled file and saving it again. Then delete both the file and the backup file. This method isn't as good as a true erasure, but only the most determined snoopers will be able to find your documents.

If you must keep a sensitive file on a hard disk (perhaps because it is too large to fit on a floppy), then you should use an encryption program that scrambles the contents. The three utility programs mentioned above all do encryption. ❑

OPERATIONS

CHANGING TIMES

Change can be stressful in a growing business, especially when it trespasses on employees' workspace. Harry Seifert, CEO of $12-million Winter Garden Salad Co., based in New Oxford, Pa., learned the hard way that morale can suffer if employees aren't updated on revamps that affect their workstations.

Management redesigned one of the plant's workstations but neglected to tell the employees who use it every day. Suddenly finding their familiar workstation gone one morning bombed with the group. Seifert had thought they'd be thrilled with the new design, but before long companywide morale hit an all-time low. Now, Seifert takes the time to hold quarterly meetings for all 140 employees on such changes. Morale is back up, he reports, and management-employee relations have improved. ❑

Reported by Teri Lammers, Paul B. Brown, Joshua Hyatt, Anne Murphy, and Tait Wardlaw

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THE MAGAZINE FOR
GROWING COMPANIES

JUNE 1990
$3.00

Inc.

THIS WOMAN HAS CHANGED BUSINESS FOREVER

How Anita Roddick of The Body Shop Has Customers and Employees Clamoring for Her Brand of Business

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GETTING PAID

Surefire ways to get what's owed you

SEE PAGE 58

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COVER PHOTOGRAPH
by Dudley Reed

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HANDS ON

A Manager's Notebook

RESOURCE

LOG ON, BITTE

If you've got questions about exporting to West Germany, a couple of on-line databases may have the answers. You don't need to speak German to use them, but you do need a modem and a computer.

According to Leonard Fuld, president of Fuld & Co., competitor-intelligence specialists in Cambridge, Mass., these two databases come complete with English translations of files:

ABC der Deutschen Wirtschaft. Lists name, address, phone number, products, and number of employees for 76,000 manufacturers. It includes industry classification, commercial registration, and bankers. Managers and sales reps are listed by name.

Wer Liefert Was? Information on 58,000 manufacturers and service suppliers includes address, phone number, product lines and services, and trade names of products.

For access and price information on either database, call Data-Star, (800) 221-7754; or FIZ Technik, Frankfurt/Main, 49-69-430-8225. Wer Liefert Was? is also carried by Bertelsmann InformationsService, Munich, 49-89-43-1890. ❑

CAPITAL
INTERNATIONAL FUNDING

How much of your financing needs is met by foreign capital?

Annual revenues	Currently	In 5 yrs.
Less than $5 million	13%	17%
$5 million-$25 million	17%	20%
$25 million-$100 million	19%	24%

Source: Survey of 774 electronics industry executives by Ernst & Young, San Francisco, 1990

STRATEGIC ALLIANCES

POINT OF REFERENCE

Thinking of entering a strategic alliance with a large corporation? Don't feel shy about asking for references—no matter how big the company, advises Mike Allred, CEO and president of Visual Information Technologies Inc., a Dallas-based manufacturer of image processing systems.

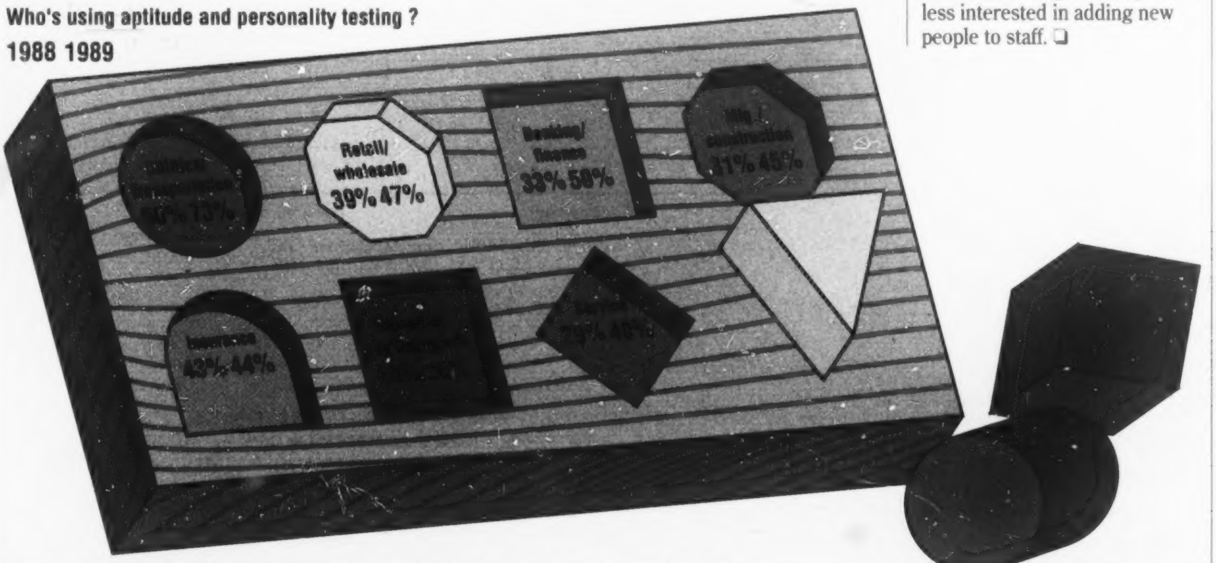
Before entering a major strategic alliance with a TRW Inc. subsidiary, Allred asked for contacts at other small companies with which TRW had forged alliances. TRW was happy to comply, and Allred found the information useful. He believes asking for references actually helped him in his negotiating, since it showed he wasn't overanxious to form an alliance. "Winners want to play with winners," Allred observes. ❑

PERSONNEL POLICY

WHAT'S ON THEIR MINDS?

Who's using aptitude and personality testing ?

1988 1989



Source: AMS Hiring and Firing Policies Survey of 255 companies of all sizes by Administrative Management Society Foundation, Trevose, Pa., 1990

COMPENSATION

A PIECE OF THE ACTION

When one group of employees earns commissions while others in support positions are on salary at the same company, resentment is the likely result. Bill Byrne, founder and publisher of *Tri-State Neighbor*, a biweekly magazine in Sioux Falls, S.D., found a way to reduce the friction. Without taking incentives away from his advertising reps, he lets others share in increased revenues.

Byrne still pays his reps a 5% to 8% commission. But for the past two years he's also run a commissionlike program for his five production and administrative employees. For every ad page sold above a base level, they split $20. As the number of ads sold has increased, the monthly shares have grown to about $200 a person.

Before, Byrne says, production people groaned when ads came in late. "Now, you don't hear those complaints. If anything, they're pushing the salespeople to get out and sell more." And because they want their shares to grow, they're less interested in adding new people to staff. ❑

CHARTS: ELLIOT BERGMAN

HANDS ON

COMMUNITY RELATIONS

ALL TOGETHER NOW

Jacki Baker, co-owner of Mother Myrick's Confectionery & Ice Cream Parlor, an ice-cream shop and mail-order candy business with sales of less than $1 million, wanted to do something to encourage children to read.

Baker and her husband, co-owner Ron Mancini, enlisted the help of local high-school art students, who competed to design a game sheet on which grade-school kids could write down the names of books they had read. The winner received a $50 savings bond. Teachers distributed the sheets to 2,000 students in Manchester Center, Vt., and surrounding towns. For each 2 books read, Mother Myrick's would award an ice-cream treat. After reading 11 books, student and family (up to four people) shared a free cake and ice cream.

More than 300 children took part, and the project cost less than $3,000. "Parents told us kids were holed up in their rooms reading," says Baker. Other payoffs were a higher company profile, including a chamber of commerce award, recognition from Vermont governor Madeleine Kunin and First Lady Barbara Bush, and more family visits. ❑

MEETINGS

TELL US ABOUT IT

The president and CEO of Windham Hill Records, in Palo Alto, Calif., wants each employee to know how important his or her job is to the company. So she holds an hour-long meeting for all 30 employees at company headquarters every Monday morning at 9:00. Everyone from the warehouse stocker to the chief executive herself, Anne Robinson, gives a two-minute summary of what they have upcoming for the week.

Why bother with such a production every week? It allows everybody in the company to report more accurate information than if a manager spoke for them, keeps the organization flat, and instills employees with a sense of pride in their work, reports Robinson.

Windham Hill's two branch offices also hold meetings. Minutes from the meetings are combined and circulated to all 60 employees. "Information is power, and I don't think it should live inside my head," says Robinson of the eight-year-old tradition that grew with the company. ❑

ENVIRONMENT

WHEN LESS IS MORE

Randy Clark, president of Sun Sportswear Inc., in Kent, Wash., was unpacking T-shirts one day when he realized that the plastic polybags Sun was using for packaging were overkill, *and* they were hurting the environment.

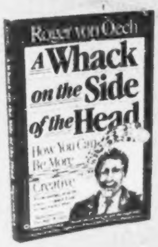
So in early 1990 the $73-million company started shipping its shirts, tank tops, and sweats right in the box. The clothes arrive less wrinkled since they don't slide around as much, Clark reports, and customers—including Walmart, K mart, and Bradlees—don't miss the plastic.

"It serves the environmental cause," he says, "and it's a cost saver for us." Just how much does it save? At a unit cost of 5¢ per polybag, Sun could wind up saving about $37,500 a year. ❑

CEO'S READING LIST

A Whack on the Side of the Head: How to Unlock Your Mind for Innovation

by Roger von Oech, Warner Books, 1990 (revised edition), $12.95



MARK ALCAREZ

"By the time I became president of our family-owned Maker's Mark Distillery in 1977, we were happy with our modest success, but we were in a declining market. Distilled spirits in general were losing favor with the public, and bourbon whiskey was particularly hit hard. We were going to have to do something, not just to compete with the big guys, but to increase sales in the face of a declining market.

"About that time, a friend of mine gave me a copy of *A Whack on the Side of the Head.* It was a revelation.

"What it suggested to me was that there was a big difference between the detail orientation necessary to handcraft a fine whiskey exactly right and the way to go about marketing it successfully. It made me realize, somewhat painfully, that we needed to throw out everything we thought we knew about communicating with our customers and potential customers.

"I highly recommend the chapter 'To Err Is Wrong.' Sure, mistakes cost money, but not making mistakes can also be costly in the long run. Because if you're not coming up with ideas that fail, you're undoubtedly not seeking out the big ones that *really do* work.

"But as von Oech notes, 'Being creative and obnoxious are sometimes very similar.' The ad we ran last year with a dead horse in it, for example, did not amuse some of Kentucky's prominent thoroughbred breeders. Well, it seemed like a good idea at the time. At least we discovered (painfully) that our advertising campaign is extremely well read."

—Bill Samuels Jr., president, Maker's Mark Distillery, Loretto, Ky.

INTERNATIONAL

IT'S WHO YOU KNOW

If you're looking to subcontract your work to offshore manufacturers, the people in the middle of your trade—the shippers—may be the best source of leads.

Joanne Marlowe, president of DSG Inc., a $4-million Chicago company that sells weighted beach towels, already did business with mills in Brazil and Yugoslavia through U.S. agents. But what she really wanted, she told her shipper, was to save broker fees by finding offshore mills with which she could work directly. Her shipper gave her names of contacts at three manufacturers, then made introductory calls on her behalf. She followed up and eventually made the new mills her primary partners.

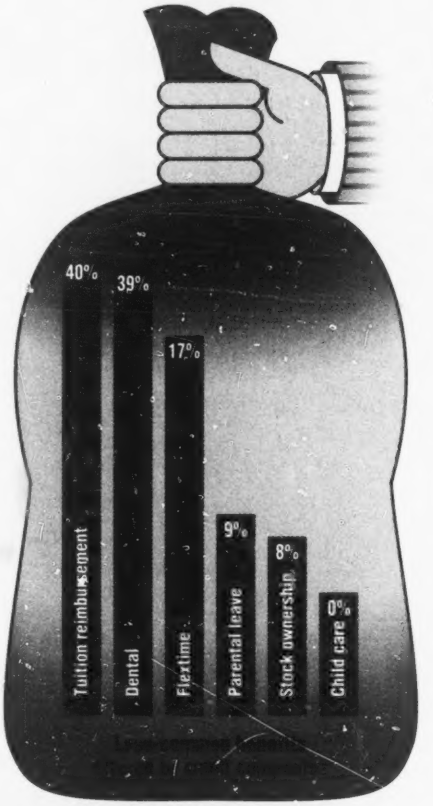
"When you're dealing overseas, companies are less likely to rip you off if they know you're part of the network," says Marlowe. Bottom line: between cheaper freight and elimination of agent commissions, Marlowe figures she'll save 15% to 17% on costs. ❑

HANDS ON (continued)

HANDS ON

BENEFITS

SMALL TIME



Source: National Association of Manufacturers survey of 2, 228 companies, more than 96% of which have annual sales under $50 million, 1989

CUSTOMER SERVICE

ATTITUDE ADJUSTMENT

To make sure employees don't clown around with the customers who fueled the growth of Sequent Computer Systems, president Scott Gibson depends on one of the most famous clowns of all, Bozo. One hundred "Bozo boxes" are strategically located within easy reach of most conversation spots, such as conference rooms and hallways. Anyone caught by a fellow employee criticizing a customer or supplier must drop a quarter in the nearest box.

As the Beaverton, Ore.–based computer manufacturer grew from $4 million to $145 million over the past five years, Gibson admits, "we had drifted a bit into the arrogance that comes from success." The boxes keep employees humble, and proceeds go to the needy. ❑

ON THE CHEAP

CUT COMPUTER EYESTRAIN

By Cary Lu

BRUCE SANDERS

Long hours in front of a computer can produce more eyestrain than productive work. So what do you do? Simple. Set up your screen to minimize glare and maximize visual comfort. Here's how.

- **Position the screen so it's not in direct sunlight.** Light from large windows can be controlled by using room dividers, horizontal venetian blinds, or, better yet, vertical louvers that can be adjusted to block the sun and leave you a view.
- **Use only indirect lighting, where possible.** Desk lamps or lamps on flexible arms near the computer can illuminate work areas without flooding the screen with light.
- **Make sure the brightness of the screen and the surrounding area are about the same** so that your eyes won't have to keep adjusting.
- **Remove any bright objects directly opposite the screen,** which can produce distracting reflections.
- **Consider installing an antiglare filter,** if you can't avoid glare with these adjustments. The best filter is a glass circular polarizer, made by Optical Devices Inc. (Camarillo, Calif.) and Polaroid Corp. (Norwood, Mass.). Unfortunately, this is also the most expensive, starting at about $100. The next-best filters are neutral-density (gray) glass that sell for $60 and up. Plastic filters, which are widely available, are only slightly less expensive than the more durable glass filters, so they are not a cost-efficient choice.

All of these filters have antireflection coatings and tend to collect dust. You can reduce dust buildup by using a filter with an antistatic coating and connecting it to a ground with a wire.

Some of the newest filters come with coatings that reduce electromagnetic radiation. The danger of such low-level radiation from your computer is disputed, but the additional cost of such coatings is modest, about $20 to $40 for standard-size filters. If you're concerned about radiation, remember that these filters cover only the front of the computer screen. ❑

MANAGING PEOPLE

EPISTLE TO THE BOSSES

People usually begin new jobs with great expectations. But the enthusiasm can fade long before managers are aware problems exist. One way to minimize the disillusionment, says Andy Plata, CEO of Computer Output Printing Inc. (COPI), a 23-employee laser printing specialist in Houston, is to develop ways of staying in touch with your workers. His approach: have new employees write him letters.

Before new people come to work at COPI, Plata and his managers ask them to write a letter to management about why they've chosen to work there. After the first week they're asked to write another letter describing "what they hope to accomplish at COPI and what contributions they feel they can make."

Seven weeks later they write a third letter detailing their progress. "We want to know if they're still turned on," says Plata. The letters become the focal point of managers' discussions about employee goals and how work relations can be improved.

He thinks new employees have adjusted to working at COPI more easily since he came up with the idea two years ago. "It helps us determine early how a person likes to work and what he or she needs from us." ❑

Reported by Teri Lammers, Leslie Brokaw, Susan Greco, Martha E. Mangelsdorf, and Bruce G. Posner

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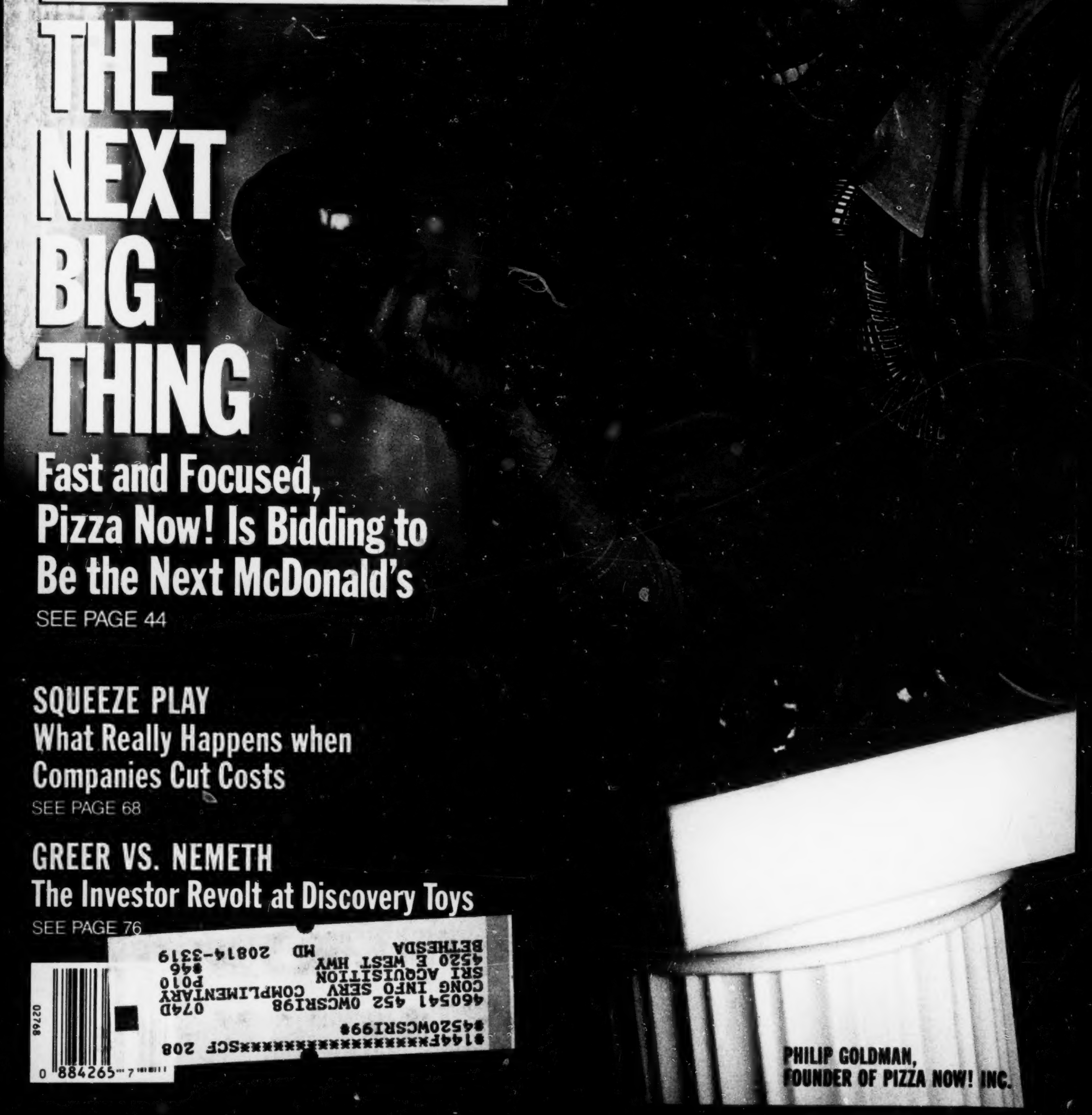

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SQUEEZE PLAY

What Really Happens when Companies Cut Costs

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GREER VS. NEMETH

The Investor Revolt at Discovery Toys

SEE PAGE 76

PHILIP GOLDMAN,
FOUNDER OF PIZZA NOW! INC.

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COVER PHOTOGRAPH by
Manuello Paganelli/
Woodfin Camp

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LETTERS

MARKETING RESEARCH

If you're trying to grow your product-based company, don't attempt Fortune 500-scale market research, advised Jim McManus and John Luther of Marketing Corporation of America ("How to Grow a Product-Based Business," April). You'll pay $200,000 or more. Instead, spend half as much, and do four to eight focus groups. Or do just two groups, "which will at least rule out disasters."

Where are these numbers coming from? asked one specialist.

Unless you're letting your research firm commit grand larceny, $100,000 should buy you *20* focus groups, including a good chunk toward travel expenses and overhead. If you do just a couple of groups—and revise in between as McManus suggests—you end up with two different evaluations. This means risking big investment dollars on the opinion of just 20 people who didn't even see the same thing.

Also, focus groups are no substitute for quantitative research. Groups are most appropriately used for the exploration and development of theories and concepts.

Karen L. Best
Principal
Creative Focus Marketing
Research & Consulting
Dallas

STIFF COMPETITION

Want to sell to the government? So do a lot of companies—which is why retired military officers Richard H. Thompson and Gary Bottorff started a business to advise would-be federal vendors (Hotline: "The Four-Star Solution," April). So far, most of the officers' clients have been large companies, which didn't surprise one battle-scarred industry veteran.

In 1983 I started a company to assist companies seeking to do business with the government. We too targeted small businesses and could have starved to death if we hadn't realized that our major competition came from the government itself, which offers a supermarket full of free advice.

Where are the free goodies? Start with your representative, who may hold a Federal Procurement Conference. The Small Business Administration will counsel you for free at one of its Small Business Development Centers. If you're a member of a minority, you can go the local Minority Business Development Center. The Defense Logistics Agency offers free counseling for small companies wishing to do business with the government.

John C. Snedeker
President
Synergistic Dynamics Inc.
Savannah, Ga.

HOUSE OF CORRECTIONS

One company was omitted from the 1990 INC. 100 list published in May. Health Images, an Atlanta owner/operator of magnetic resonance imaging clinics, had a five-year growth rate of 3,495% and would have ranked #36.

Also, the sixth criterion for listing on the INC. 100 was incomplete. It should have read: The company's stock was trading for at least $1 per share on March 1, 1990, or had an active market. We regret the errors.

INC. wants to know what you think. Please address all correspondence to INC. Letters Editor, 38 Commercial Wharf, Boston MA 02110, or call our editorial commentary line toll free at (800) 444-1756. (Messages will be recorded.) Please include name, address, and telephone number for verification. Letters must be signed, and all correspondence may be edited for space and style.

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HANDS ON

A Manager's Notebook

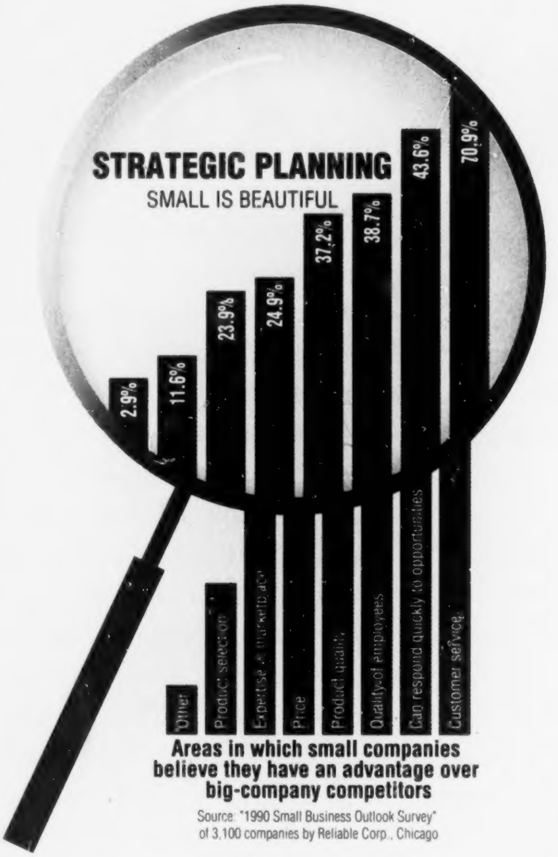
BENEFITS

FIGURING RETIREMENT

CEOs interested in planning for their own or their employees' retirement years should consider using the "retirement calculator," a pocket guide that helps you determine how big a nest egg you'll need—and how much you'll be able to build at your current earnings and savings pace—by the time you reach 65.

By focusing on current income, savings and investments, company pension, and Social Security benefits, the five-step calculator can give you a ballpark figure of how much money you'll need to retire.

It doesn't figure on any ownership stake in your business—potentially your biggest asset—but the calculator is still good for quick answers to such questions as, How much annual income would a 45-year-old executive earning $150,000 today need at retirement to maintain his or her current living standards? (The answer: $360,803. A good reason to start planning early.) For a free copy of the retirement calculator, call Kemper Financial Services Inc., (800) 733-7100, ext. 1990. ❑



Areas in which small companies believe they have an advantage over big-company competitors

Source: "1990 Small Business Outlook Survey" of 3,100 companies by Reliable Corp., Chicago

TRAINING

DRAMATIC IMPROVEMENTS

Contrary to popular opinion, training videos don't have to be expensive to produce or a drag to watch. Just ask the truckers at Motor Cargo, in Salt Lake City. There, a team of eight truckers and a dispatcher produced an entertaining, informative video for their co-workers on a tedious topic: how to catch billing errors due to inaccurate shipment descriptions.

Employees knew better than anyone what work habits needed sprucing up and viewed producing a video as a welcome break from routine, reports Kevin Avery, employee-involvement coordinator for the 700-employee, $45-million freight company.

The team of truckers donated 400 work hours to produce, direct, and act out scenes of billing mistakes. Motor Cargo paid $1,500 for the editing. The payoff: in a test study, $16.48 per bill was saved because of more accurate descriptions, and checking took only five minutes. "It's like a home video for the company," says Avery. "It's the first training video I've seen people excited to watch." ❑

DISTRIBUTION

GENEROUS TERMS

If you have just one product in a distributor's catalog, there's a good chance the product isn't getting the attention you think it deserves. At $3.8-million Delta Technology International Inc., a software business in Eau Claire, Wis., CEO Jim Anthony supplements his dealer-distributor network with four of his own salespeople, who lay the groundwork for a sale and then turn over the closing and commissions to Anthony's local distributor.

"Selling these customers takes an average of two to four months, and distributors don't want to invest that amount of time in us," says Anthony. "But when our distributors make a little easy money thanks to the supplemental sales effort, it reminds them our product does sell, and then they sell more of it themselves."

One closing can pay for a salesperson's annual base salary, says Anthony. The bottom line? Delta's product ranked in the top 20 of an industry best-seller list for 1989, and Anthony is hiring another corporate salesperson. ❑

SELLING

IT'S IN THE CARDS

The last thing you want to do is intimidate a prospect on a sales call, but whip out a business card with *CEO* or *president* printed on it, and that's just what's liable to happen, says Phil Pachulski, CEO of Prime Technology Inc., a $33-million distributor of machine tools based in Grand Rapids. So Pachulski keeps titleless cards on hand for just such occasions.

"If hands-on plant managers and shop engineers see my title, they don't see me as their equal anymore," says Pachulski. "They think I'm a big-shot office guy who doesn't know what's going on in the marketplace."

But when calling on big-company employees to whom organizational charts are important, Pachulski presents a business card with his title, and voilà, instant rapport.

Why?

"Meeting with a CEO makes them feel more important," he says. Such thoughtfulness has helped place Prime Technology on the INC. 500 list twice since its founding in 1982. ❑

CHARTS: ELIOT BERGMAN

HANDS ON

TRADE SHOWS

ALL EXPENSES-PAID "VACATION"

While trade shows may be great for business, they can be disruptive for spouses left behind. Bring them along, says Jim Ake, CEO of Electronic Liquid Fillers Inc., an $11-million bottling machinery maker in LaPorte, Ind. The only string attached is that they work a few hours handing out brochures and answering questions.

Ake figures the typical $2,000 bill for a couple of temps to work the booth was about the same as airfare, room, and meal expenses for two spouses, who would have a much better grip on the business. So he asks for volunteers. "We like to keep money inside the company family if it's possible," he reasons. "When you try to make their lives better, then they try to make the company better." ❑

EMPLOYEE MOTIVATION

THE PRIZE IS RIGHT

If your company's incentive program isn't producing results, the problem might be simpler than you think. You may be offering the wrong rewards, rewards that simply fail to motivate your employees.

Phil Roberts, president of Premier Ventures Inc., found that his 30-day employee-motivation contest was effective with employees only for the first week. "After that, they just ignored it," he says.

Finally, a disgruntled Roberts—whose company runs six Denver restaurants—asked employees what he could do to motivate them. The answers surprised him. Few, he found, were motivated by cash, and rarely were all employees interested in the same booty.

Now, Roberts constantly monitors employees' desires and offers a changing menu of prizes from which his employees can choose. It gets complicated, he admits, "but it's also kept us ahead of the competition." ❑

RETAIL

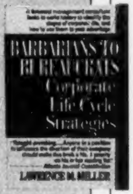
SEEING IS BELIEVING

Judy George, founder and CEO of Norwood, Mass.-based Domain home-furnishing stores, thinks a picture really is worth a thousand words in her business. Before potential customers leave one of Domain's 10 stores, they get a Polaroid snapshot of the furniture they are considering, and the salesperson writes his or her name on the back of the photo. The photo helps customers feel more comfortable choosing Domain's furniture, George believes, because they can compare it with products at other stores and their own home furnishings.

Customers also are more inclined to keep the snapshot—and thus remember the product and the salesperson's name—than a business card. "It helps them feel secure with the purchase; it bonds them with the salesperson," says George, who reports that the technique has increased Domain's sales-closing rate by about 25%. ❑

CEO'S READING LIST

Barbarians to Bureaucrats
by Lawrence Miller, Ballantine Books, 1989


BARBARIANS TO BUREAUCRATS
Corporate Life Cycle Strategies
LAWRENCE M. MILLER

"When we acquired another company, preserving our corporate culture was my priority. So I gave managers *Barbarians to Bureaucrats*—which profiles different business personality types—with a written exercise: read the book and find yourself, your manager, and me in it. At a retreat we discussed the findings.

"A lot of people identified themselves as barbarians, who have a take-no-prisoners attitude. You need those people to build a company. Many others identified themselves as bureaucrats, who tightly control things. You want those people, but not to lead the company.

"I can point to all personality types here, except the aristocrat. He is damaging to a company: instead of creating value, he likes to plan and leave the follow-through to his subjects.

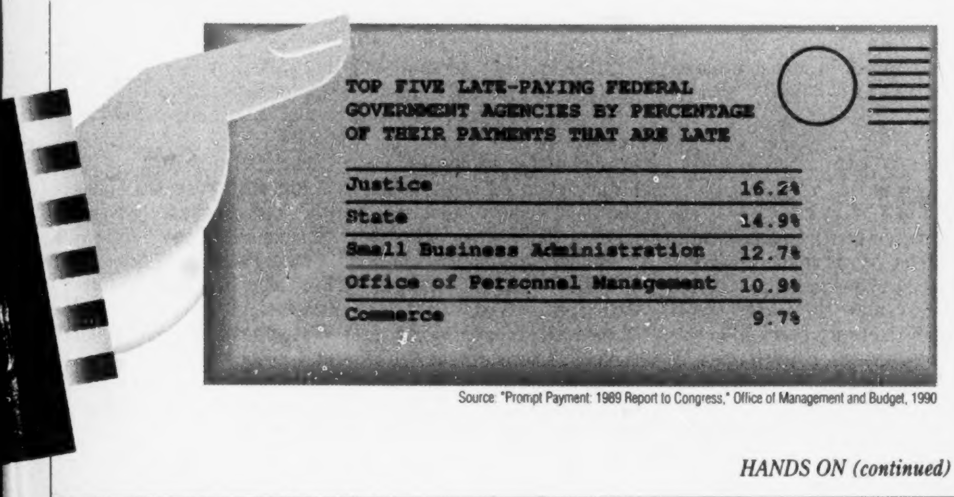
"A prophet started our company. Those are people with great vision for future products. When I came and was building sales I was definitely a barbarian. I became a synergist as CEO.

"After the acquisition, the book served as common ground for discussing the new company. It's a challenge to make an impact on behavior and change thinking in the span of three days, but because we'd read this book we had a head start."

—Lacy Edwards, CEO, XA Systems Corp., Los Gatos, Calif.

WASHINGTON

Is Uncle Sam's check still good if it's late?

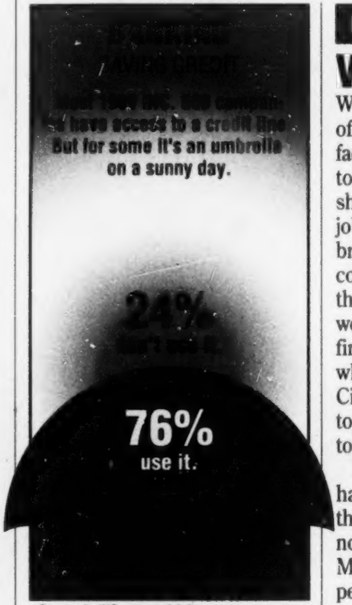

TOP FIVE LATE-PAYING FEDERAL GOVERNMENT AGENCIES BY PERCENTAGE OF THEIR PAYMENTS THAT ARE LATE

Justice	16.2%
State	14.9%
Small Business Administration	12.7%
Office of Personnel Management	10.9%
Commerce	9.7%

Source: "Prompt Payment: 1989 Report to Congress," Office of Management and Budget, 1990

HANDS ON (continued)

DILIP CHAUHAN



Source: An INC. survey of 413 companies reporting a five-year growth rate of 573% or higher since 1984

HIRING

VET SUPPLY

When John McGraw, president of Production Arts Lighting, faced a labor crunch, he turned to the Vietnam Veterans Leadership Program (VVLP), a free job-placement service with branches in 11 major cities. "A couple of us who had been in the service during Vietnam were looking for new ways to find people," says McGraw, whose $8-million New York City business rents equipment to off-Broadway theaters and touring rock groups.

In four years Production Arts has filled eight entry-level jobs through VVLP. Several vets are now managers. And, says McGraw, "they refer us to other people in the community." For information: Gene Gitelson, VVLP, (212) 269-8857. ❑

MANAGING PEOPLE

CASUAL CONTACT

There's no doubt about it, a growing business can be a professional pressure cooker for employees. To help cool things down at Arche Technologies Inc., Fridays—when most staff meetings are held—are dress-down days.

Isaac Levanon, president and CEO of the Fremont, Calif., IBM PC–clone manufacturer, reports the informal environment helps employees loosen up in what could otherwise be a tense meeting. "On Fridays the exchange of information is freer," says Levanon. "People don't say, 'Here's the boss, let's think about what I can say.' It's a nonthreatening environment."

Since instituting the policy, Levanon says, employee morale is up. And every little bit helps when a company grows at a rate of 250% a year to a reported $100 million in annual revenues in 1989. ❑

ON THE CHEAP

LASER QUALITY FROM LOW-COST PRINTERS

By Cary Lu

You've got to make a big presentation and preparation has carried over into your personal time. So you bring work home. Problem is, your home printer isn't capable of reading the commands required of your laser printer at the office. The two printers' outputs are mismatched; since the printers use different typefaces and spacing, line length and page breaks vary considerably.

What do you do? Delete all the laser printer commands at home and re-input them when you get back to the office? Run out and buy an expensive laser printer to replace your not nearly as expensive but perfectly capable dot matrix printer? Neither.

The solution is printer-emulator software, which can make a low-cost printer behave like a laser printer. You'll still want to print the final copy on a laser printer, but your low-cost printer will work fine for layout and proofing.

The most sophisticated laser printers use a page-description language called PostScript. PostScript emulation software lets you process the language on a microcomputer at minimal cost. Your computer must have at least a megabyte of memory to run the program, and even at that expect printing to be slow.

UltraScript (from QMS Inc., 800-635-3997) is the leading software emulator for PostScript. It's available for IBM PCs and compatibles (with at least an 80286 processor) and Macintosh computers. UltraScript comes in two versions; a $140 version that includes basic typefaces and a $275 version that comes with more typefaces. UltraScript supports many printers, including models that sell for less than $200. For the best results—short of a laser printer—try the Hewlett-Packard DeskJet (for the IBM PC, $600) or DeskWriter (for the Mac, $800).

Hewlett-Packard's LaserJet printers are the most popular laser models for IBM PCs. Since some LaserJets now sell for less than $1,000, LaserJet emulation has been less important than for PostScript printers, which are higher priced. Nevertheless, LaserTwin (Metro Software Inc., 800-621-1137) software enables a wide range of printers to emulate a Hewlett Packard LaserJet series II printer. It sells for $250 including typeface package. All prices quoted are approximate retail prices. ❑

ENVIRONMENT

WASTE NOT, WANT NOT

One company needs plastic peanuts to pack its product. Another doesn't know what to do with them all. Now, thanks to regional "waste exchanges," you can find what you need—as well as others who need what you want to get rid of.

These services act as a go-between—confidential, if you prefer, so you aren't barraged by telephone calls. Their catalogs categorize company waste generators and users in such categories as acids, alkalis, and other inorganic chemicals; solvents and other organic chemicals; oils and waxes; plastics and rubber; textiles and leather; wood and paper; metals and metal sludges; and miscellaneous.

For more information contact any of these six major regional exchanges:

- **Midwest:** Resource Exchange & News, Kay Ostrowski, (616) 363-3262
- **MidAtlantic:** Industrial Waste Information Exchange, William Payne, (201) 623-7070
- **Northeast:** Northeast Industrial Waste Exchange, Nancy Groenhof, (315) 422-6572
- **West:** Pacific Materials Exchange, Bob Smee, (509) 623-4244
- **Southwest:** Renew, Hope Castillo, (512) 463-7773
- **Southeast:** Southeast Waste Exchange, Maxie May, (704) 547-2307. ❑

Reported by Teri Lammers, Jill Andresky Fraser, Susan Greco, Joshua Hyatt, and Martha E. Mangelsdorf

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THE MAGAZINE FOR
GROWING COMPANIES

AUGUST 199
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Inc.

HOT PRODUCT, COLD WORLD

With His New Concept Rick Duhé Thought He Had the World Beat. What He Had Was 'a Product from Hell.'

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BANKING

The New Rules of Commercial Lending

PAGE 93

MARKETING

What Your Receipts Should Be Telling You About Your Best Customers

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RICK DUHÉ,
CREATOR OF CAJUN COLA

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COVER PHOTOGRAPH by
Manuello Paganelli/
Woodfin Camp

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NEW BUSINESSES

pete rose
outfield
MANTLE
BILLY MARTIN

SEGLIN COLLECTION

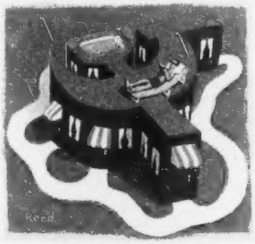
TRADING BABE FOR YOGI More and more, baseball and other sports cards are attracting serious collectors and investors, leading an ex-banker to introduce a service to value card collections. Collector Systems provides periodic reports—like portfolio valuations—on individual collections, updating the buy/sell prices through a regular nationwide survey of shops, dealers, and collectors. Critical issue: will the $1-billion sports card industry accept the Dallas firm's new valuation formula?

◆

START ME UP Who's the customer for a product said to extend engine life by half? Lubrication Research initially is targeting car owners via direct mail. The Carlsbad, Calif., company hopes for big accounts, however, from the military—which wants to pamper its vehicles—and a manufacturer of truck engines, to sell in its aftermarket network. Both are testing the engine prelube device.

◆

ACCIDENTAL TOURIST As *glasnost* brings more international businesses to Moscow, many visiting executives are requesting housing that feels like home. So a U.S. law firm and U.S. construction company have joined with a Soviet farm collective to build American-style garden apartments for lease to corporations. With bookings from the likes of Du Pont and Johnson & Johnson, the Rosinka project is breaking ground this summer.



MIKE REED

BOXED SET Would gift givers buy magazine subscriptions if they were sold like other presents? A Princeton, N.J., company is betting on it. Subscriber Systems boxes up gift subscription forms with greeting cards and displays them on spinning racks in shops. Retailers get a new impulse item, publishers a cheap way to add new readers.

Give Magazine Subscriptions

◆

BABY PROOF With all the litigation over intrauterine devices, designing new contraceptives may seem a hazardous undertaking. But a Springfield, N.J., company is convinced people want a more convenient nonpill birth control. Yama is testing a barrier device for women called Lea's Kap, which can stay in place 72 hours. With encouraging trials at the University of Southern California and in Paris, the next step is a large-scale study.

Clearer Sounds on the Radio Front

Talk about the chicken and the egg. Emil Torick had the technology for improved FM stereo reception. The question was, who could he get to buy it first—broadcasters or radio manufacturers? Listeners wouldn't benefit until radios were updated, but manufacturers would have no incentive to improve radios before stations broadcast the enhanced signal.

Torick turned to broadcasters. "You expect them to take a bit of the lead," he says, as they did with standard FM stereo. Besides, CBS and the National Association of Broadcasters were helping the cause. Torick was at CBS when he developed the technology with NAB; when CBS spun it off in 1987, both companies retained partial ownership of the new Broadcast Technology Partners.

Already, some 140 radio stations have converted to "FMX Stereo," and a smattering of new car radios are touting the hiss-free signal. "In the long run," predicts Torick, "you won't be able to sell a radio without the FMX logo."

Emil Torick

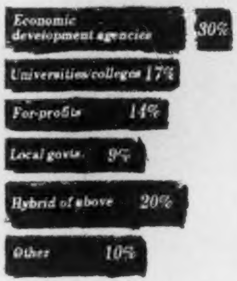
PAUL HAYNES

NOTEBOOK

In Toronto, a dejected inventor came up with a solution to his problems: a store that sells nothing but bizarre stuff that is not yet available from other retailers. New manufacturers pay to get displayed—more if they keep 100% of sales, less if they share a percentage—in return for a shot at proving themselves. The New Product Store is slated to expand to Beverly Hills this fall.

◆

WHO'S SPONSORING INCUBATORS?



Source: National Business Incubation Association, Athens, Ohio, from a survey of 385 U.S. and Canadian incubators.

Depending on the sponsor, small-business incubators may have different goals: job development, technology transfer by university professors, or pure for-profit rental of office space.

◆

Meanwhile, the Wisconsin Women Entrepreneurs association is looking into developing a women's service firms incubator in the old Allis Chalmers headquarters. Nationally, 21% of incubator tenants are women.

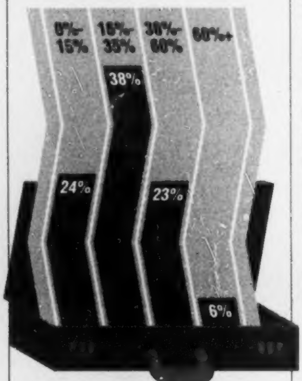
HANDS ON

A MANAGER'S NOTEBOOK

BENEFITS

RISING RATES

By what percentage did your insurance premiums increase this year over last year?



Source: A survey of 250 small business owners, National Small Business United, Washington D.C., February 1990

SELLING

On the floor sales

"If we can convince a customer to visit our place, we'll make the sale about 90% of the time," says Jim Ake, CEO of $11-million Electronic Liquid Fillers Inc. (ELF), in LaPorte, Ind. So Ake encourages prospective buyers by subtracting the cost of one round-trip airline fare from the invoice if the customer places an order for ELF's bottling machinery, which costs from $8,000 to $70,000.

ELF gets about one visit a day from a prospective customer. To the 50% of ELF's customers that are small companies, the airfare offer can be a deciding factor on whether to fly out, while big-company customers don't even bother sending in tickets for reimbursement.

"When they see this company has meat on its bones and will be here to service the equipment, it means a lot," says Ake. "It's well worth the cost." ❑

ENVIRONMENT

Green card

The environment may be a touchy topic for business executives, but Dick Brooks makes no bones about where he stands on environmental issues. The founder and CEO of a $40-million chemical manufacturing business, ChemDesign Corp., headquartered in Fitchburg, Mass., prints it right on his business card: "chief environmental officer."

And it's not lip service. A company subsidiary was named a Friend of the Environment in Wisconsin for cleaning up an old plant it purchased there. Brooks estimates he spends 40% of his time staying two steps ahead of environmental regulations with heavy capital investments in environmental controls.

ChemDesign CEO Dick Brooks

"It also makes a statement to my employees," says Brooks. "While working at this company you either subscribe to pro-environmental policy or you don't work here." ❑

OPERATIONS

CEO in training

Putting in a single day on the shop floor to gain employee goodwill may backfire and bring complaints of patronizing behavior. Paul Huber, president and CEO of Seco-Warwick Corp., a manufacturer with 175 employees in Meadville, Pa., was committed to really learning the factory operations, so the floor supervisor assigned him different jobs for one day a month for a year.

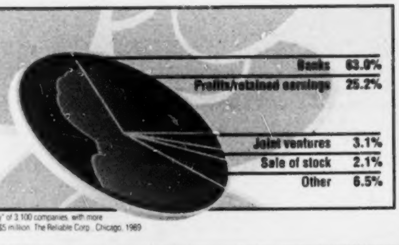
When he worked as a wire welder, Huber decided the make-do machines were lacking and purchased new ones. Laying brick one day convinced him that using knee pads would be much easier than moving around pads on the floor. And after retracing his steps as an assembly worker, he improved material flow efficiency.

"I gained a much better appreciation of the company's problems," says Huber, who adds that floor employees were impressed with the quick turnaround on improvements. Now the vice-president of manufacturing, Clifford Lohr, has taken over spending one day a month on the floor. ❑

CAPITAL

MONEY SUPPLY

Where do small companies expect cash to come from in the 1990s?



Source: "1990 Small Business Outlook Survey" of 3,100 companies, with more than 80% reporting annual sales of less than $5 million. The Reliable Corp., Chicago, 1989

EMPLOYEE RELATIONS

Building trust

Fostering employee loyalty is a tall order for a CEO. One old-fashioned gesture of trust is giving employees keys to the store. At Edson International, in New Bedford, Mass., president Will Keene has given 7 of the 25 workers keys to the family-owned machine shop, which makes steering systems for yachts.

"These people have been with the company at least five years," says Keene. "They've made it known they plan to stay with our company for the long haul. They aren't out to rip us off." Newer employees get the message that long-term commitment is rewarded.

And the keys are used. Employees can work on their own projects in the shop on weekends, as long as someone else is present in case of injury. For workers who can't afford their own shop, it means a lot. ❑

CUSTOMER RELATIONS

House ads

Advertisements are everywhere. And Dave West, vice-president of San Luis Sourdough, in San Luis Obispo, Calif., uses this trend to his advantage. He runs ads in his company newsletter. West could have found paying advertisers for his quarterly six- to eight-page publication, but he gives away the space, using the ads to plug his customers.

The ads are nothing fancy. They promote whatever the customer wants and, of course, mention that the customer carries West's bread. "It's another way to thank the people who do business with us," says West. ❑

MILLICENT HARVEY

CHARTS: ELIOT BERGMAN

HIRING

Frame of reference

Checking a job candidate's references has become a perfunctory task for many managers. Remarks are so general they become virtually meaningless. To find out what the terms *hard worker, detail-oriented,* and *people person* really mean to someone, managers at Octel Communications Corp., in Milpitas, Calif., spend up to an hour on the phone with at least three references per candidate, discussing not just the candidate, but also the reference's own work ethic and corporate culture.

Vasconcellos 1990

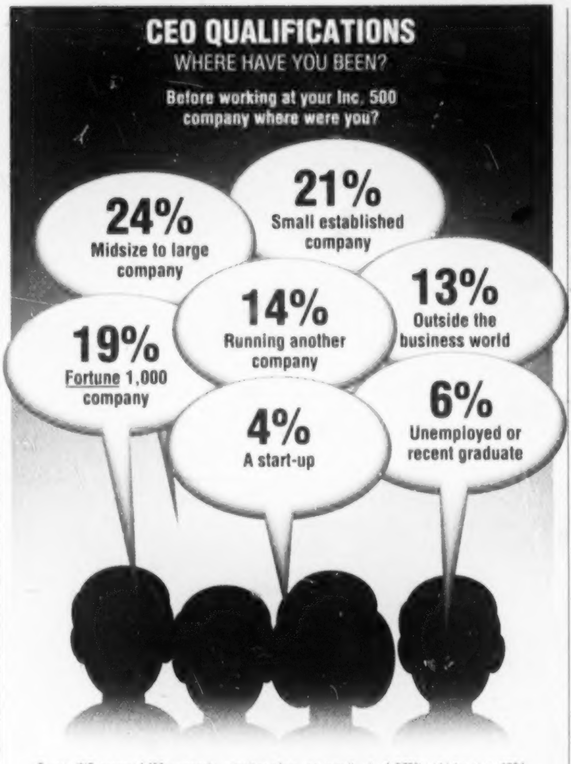
"What we're trying to gauge is the frame of reference a person is using to provide an opinion," says president and CEO Robert Cohn. "It can be very revealing."

Cohn decided not to offer a job to one management candidate after a conversation with a key reference—a senior executive who exhibited poor people skills.

Why? Cohn figures if the caliber of the references doesn't match Octel's expectations, there's a pretty good chance that the job candidate's won't, either.

Apparently the method is working. Octel's employee attrition rate is 5%, twice as good as Silicon Valley standards, Cohn claims. ❏

DAN VASCONCELLOS



Source: INC. survey of 456 companies reporting a four-year growth rate of 573% or higher since 1984
Total equals more than 100% due to rounding

FINANCE

No pay, no work

James Stroop, president and CEO of $12-million Lakewood Inc., a construction company in Holland, Mich., takes a hard line when it comes to getting paid. He stops work on any job for which payments are 20 days overdue.

"We bill for projects monthly, sending out invoices on the 25th of the month," Stroop explains. "Payment is due on the 5th or 10th day of the following month. By the 12th day, I get a list of customers whose payment hasn't been received." On days 15 through 18, Stroop and his account managers hit the phones, warning delinquent payers that projects will be shut down if payment isn't received promptly. "Usually we don't have to take further action," he notes. But if customers don't pay up, construction grinds to a halt on day 25, only to be resumed after a cashier's check is deposited in Lakewood's coffers.

Lakewood has written off less than $5,000 worth of bad debt in the company's 15-year history. "If you're dealing with regular customers, they won't want to see their shipments or services interrupted," reasons Stroop. "Companies have lots of leverage—all they have to do is be willing to use it." ❏

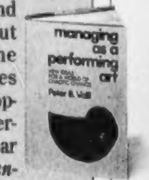
HANDS ON (continued)

CEO'S READING LIST

Managing as a Performing Art

by Peter B. Vaill
Jossey-Bass Publishers, 1989

"So much of the leadership process today involves motivating and inspiring others, communicating the rules of the game over and over again. But who nurtures the leader? How does an organization operate at a high-performance level year after year? In *Managing as a Performing Art,* Peter Vaill describes this as the search for a deeper experience.



"Vaill argues that management is not a science; it's an art form. His book is about bringing the best out in people so everyone feels the organization means something more than just what it does or the money it makes. Vaill's not suggesting that you can walk away from the importance of fiscal management.

"But the bottom line isn't the only measure. In a really good company, management also focuses on technology, on the marketplace, on being an active participant in the community. The trick is to strike a balance and not allow any one of these factors to pull too strongly and destabilize the whole.

"I agree with Vaill that managing is more than methodically watching the numbers and applying popular theories. The more integrated you are as a human being, the more effective you can be."

—Malte von Matthiessen,
CEO, YSI Inc.,
Yellow Springs, Ohio

DILIP CHAUHAN

HANDS ON

MEETINGS

Calm before the storm

When brainstorming on a new project, creative teams at Ovation Marketing, a La Crosse, Wis., advertising agency, would often gallop off in a wrong direction, then backtrack during more sober moments. To calm overactive imaginations, CEO Ralph Heath set up a second conference room decorated with $500 worth of pillows and walls painted a calming light blue.

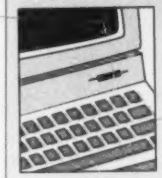
"It slows everybody down so we think through alternatives and make decisions more carefully," explains Heath. "We wanted to create a separate environment for these special meetings." Post-brainstorm meetings are held in a traditional conference room with electronic equipment available for focused follow-through.

Heath hasn't measured how much efficiency has increased since redecorating, but he reports that the subdued atmosphere makes it easier for him to concentrate on coming up with new ideas instead of steering the conference. ❑

ON THE CHEAP

EASY ACCESS COMPUTER INFO

By Cary Lu



If the computer age is also the information age, why is using your computer to get information so difficult? There are vast libraries of business information available that you should be able to access to look up articles about an ally or competitor, find patents, or extract financial data about a company.

But there are two problems. First, the service is expensive. An hour on Dialog, Dow Jones News/Retrieval, or Nexis can easily cost the user $100. Second, the services are difficult to use. To extract information, you have to master an arcane command language of a type that disappeared long ago from other computer software.

Fortunately there is relief, in the form of microcomputer software that lets you develop search criteria in a relatively straightforward way and automatically translate your search request into a set of commands for the information service.

■ **For Dialog information service,** Pro-Search presents a menu-driven interface on your microcomputer ($295 for Macintosh, $495 for IBM PC from Personal Bibliographic Software, 313-996-1580). You create a search within Pro-Search and connect to Dialog only after you have created a query. You'll save money by only being connected to Dialog for a minimal length of time.

■ **For Nexis,** the business information software from Mead Data Central, News Plus ($50 for IBM PC, from Mead, 800-541-6886 or 513-865-6800) works in a similar way.

■ **For Dow Jones News/Retrieval,** there is NewsReal ($179 for IBM PC, FNN Data Broadcasting Corp., 800-433-7068). Unfortunately, this is most useful for getting current national business news in a few dozen broad areas, so to use Dow Jones News Retrieval more thoroughly, you'll still have to learn the command language. ❑

MARKETING

Tracking coupons

You spend an hour talking about the benefits of your product line, and then the customer walks out before you have a chance to get his or her name and phone number. Barry Fribush, founder of Bubbling Bath Spa & Tub Works, in Rockville, Md., says with his system, that'll never happen again.

"While we are making our sales pitch," explains Fribush, "we hand the customer a coupon that entitles him to $125 worth of merchandise if he buys from us. We tell him that because this is a special offer, we need to track every coupon, so we need his name, address, and phone number."

If the customer balks, "We say that's perfectly OK, but we need the coupon back." Fribush says in the seven years he has been giving out coupons—which are redeemable for a chemical kit, pillows, and extra filter cartridges—"maybe a handful have given it back. Once we have their names, we follow up forever." ❑

BRUCE SANDERS

MEECO Inc. president and CEO Lisa Bergson

TED ANDERSON

BOARDS

Tailor-made boards

If a board of advisers pays off when planning a company's future, then why not assemble one when planning for each department? That's what Lisa Bergson, president and CEO of MEECO Inc., a $4-million maker of scientific measurement devices, figured.

Bergson wanted to revamp the company's outdated image, so she assembled a board of marketing advisers to do a case study of MEECO's marketing efforts. Five outside advisers with years of marketing expertise teamed up with five MEECO people for one long lunch. Bergson left the restaurant with sketches for a new corporate identity, trade booth, and brochure in hand.

"We are in a very technical industry and are located in Warrington, Pa., which is remote geographically. This was one way to keep our people stimulated," says Bergson, who plans to hold marketing and manufacturing advisory meetings in 1991. ❑

Reported by Teri Lammers, Paul B. Brown, Jill Andresky Fraser, Susan Greco, and Anne Murphy

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WHAT TOP EXECUTIVES READ

How some of the best business minds get their information

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SPECIAL FEATURE:

THE REAL COST OF CUSTOMER SERVICE

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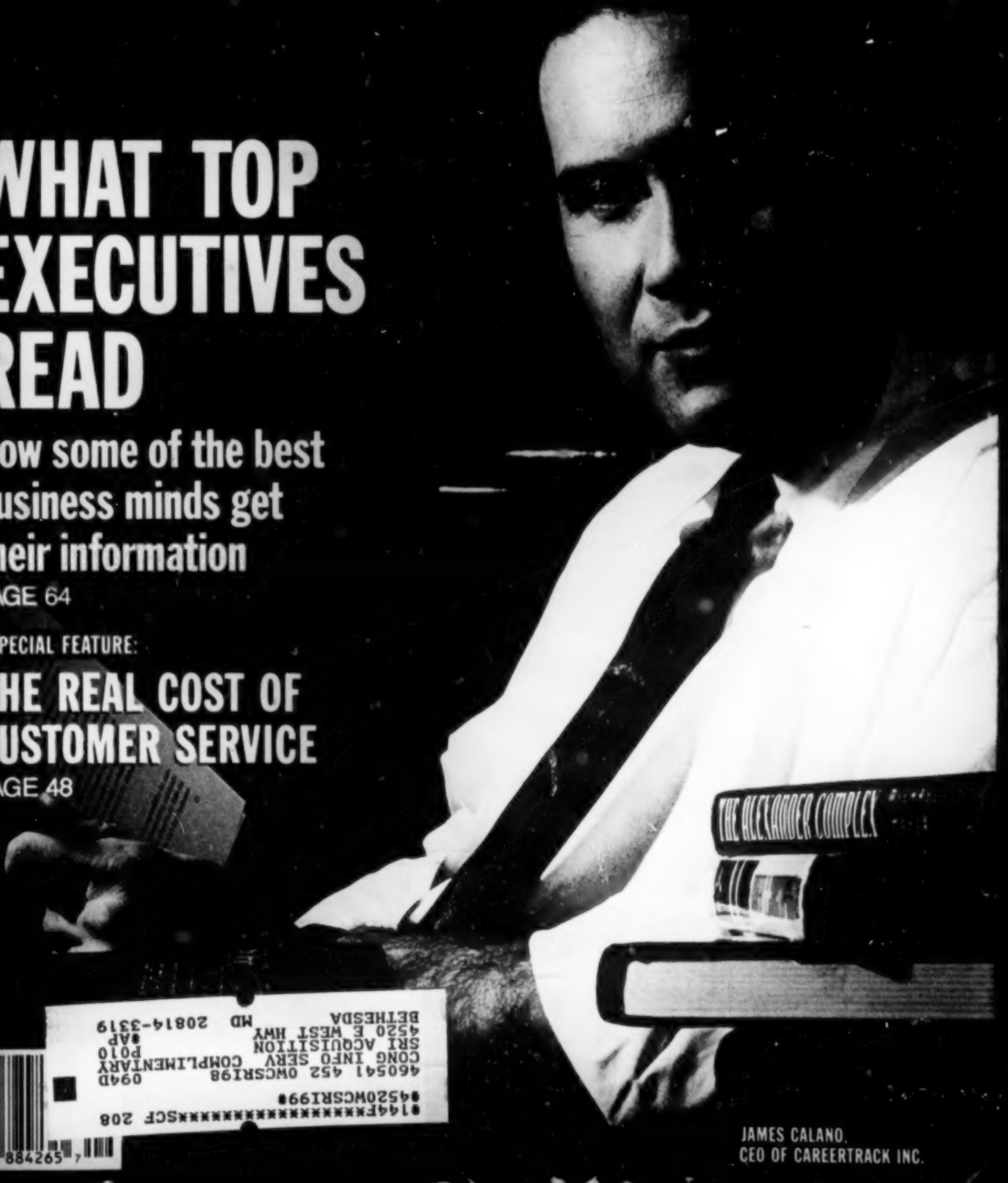

JAMES CALANO,
CEO OF CAREERTRACK INC.

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COVER PHOTOGRAPH
by
Stephen Collector

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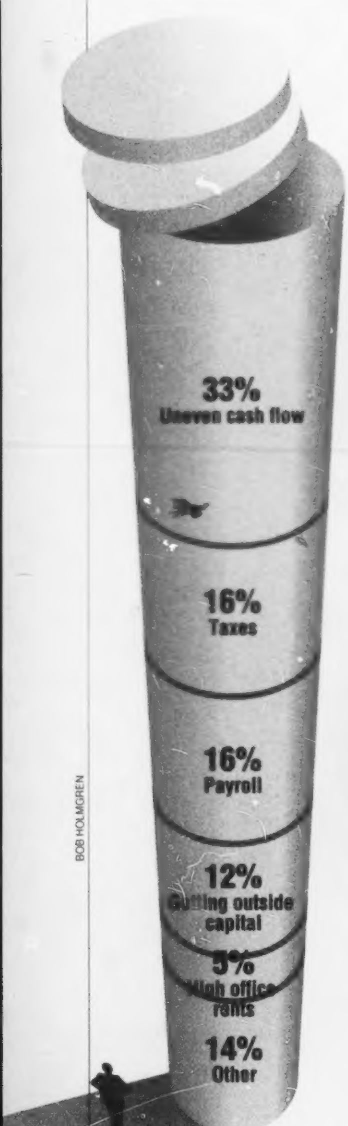
HANDS ON

A MANAGER'S NOTEBOOK

FINANCE

WHAT IS YOUR GREATEST FINANCIAL OBSTACLE?



Source: "1990 Small Business Survey" of 359 firms, three-quarters of which have annual sales of less than $15 million. American Institute of Certified Public Accountants, New York City, 1990.

BOB HOLMGREN

MARKETING

Are We Having Fun Yet?

"People don't even want to talk about accounting it's so boring," says Yvonne Angelo, cofounder and vice-president of SBT Corp., an accounting-software business in Sausalito, Calif. You need an icebreaker, she says.

When Angelo's receptionist came to work dressed up for the Fourth of July and customers laughed or stopped to talk to her, Angelo knew she was on to something.

Not every day is a costume party, but Angelo now gives employees at the front desk a stash of cash to buy yo-yos, candy, and assorted toys. The result? Laudatory letters from customers spill in faster, she reports. "If employees are relaxed and having fun," Angelo explains, "it comes across to our dealers." ❑

SBT Corp. vice-president Yvonne Angelo with employees

RESOURCE

ESOP Alternatives

For many companies, employee stock ownership plans just aren't practical or don't fit the corporate culture. So the National Center for Employee Ownership (NCEO) has detailed some substitutes.

From 401(k) plans to valuing a closely held business, *Employee Ownership: Alternatives to ESOPs* covers the bases. The book highlights small to midsize companies' alternative ownership plans and includes financial worksheets, model plans, graphs, and a list of consultants to help you get down to work.

For $25 ($15 for members), it's hours' worth of consulting. Write: NCEO, 2201 Broadway, Suite 807, Oakland CA 94612. ❑

SELLING

Back-Room Solutions

What better way to prove your commitment to customer service than to send your back office, the people who do the hands-on work, off to visit customers to complement your sales force? Shepard Poorman Communications Corp., a $32-million printing company in Indianapolis, routinely sends its typesetters out to meet the editors whose manuscripts they work with daily.

Why bother? "They may not be slick salespeople, but they can solve problems for customers who didn't even know the problems existed," says vice-president for quality Don Curtis. He doesn't keep numbers on how the added investment in travel has paid off, but says customers are grateful, operations are more efficient, and product quality has improved. ❑

BENEFITS

Sick Time or Money

The way most companies set up sick-day policies, there's an incentive for people to take the days, regardless of whether they need them. But Stan Torstenson, founder and CEO of Stan's Lumber Inc., a $20-million building-supply company in Twin Lakes, Wis., rewards his 85 employees for coming to work, provided they can. How? By paying them cash for any of the three paid sick days they don't use.

With lower absenteeism, Torstenson's three stores run more smoothly, he says. "When you have to shift someone from one area of the business to another," he notes, "you don't get the same job done." ❑

CHARTS: ELIOT BERGMAN

HANDS ON

TRAINING

Mobile Service

To CEO Bill Buckingham, "Going Mobile" is more than just a song by The Who. It's also a way to broaden his business base. His $2.9-million training and service company, Buckingham Computer Services Inc., recently hit the road with Training Wheels, a 34-foot motor home equipped with six personal computers and a VCR that plays training tapes.

The Midland, Mich.-based company has training labs in four states, but its largest customer—Dow Chemical Co.—operates nationwide. "We're now able to take the training right to them," Buckingham says. "We're now getting business that we'd otherwise lose."

The downside? "It takes some courage to drive the thing," he says. "It's so big." ❑

MEETINGS

Positive Protest

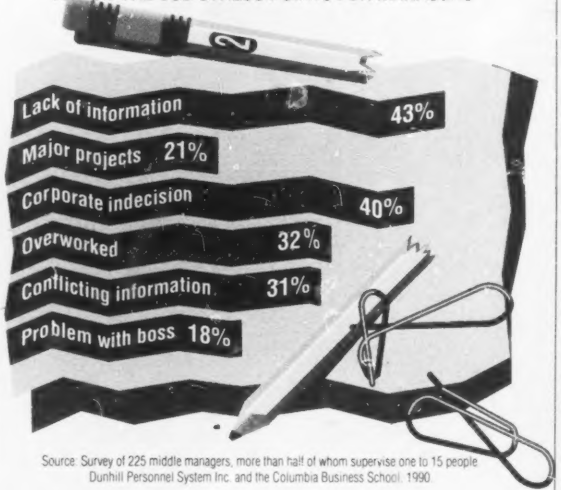
How can you help employees feel more comfortable approaching one another when they're unhappy about something?

Every other month Pat Bruner, president of the two-site T.L.C. Child Care Centers Inc., takes her 22 employees out for a pizza. The first hour is open season for criticism about anything and anybody, including management. Protests range from "You borrowed my supplies without returning them" to "You get too tense when things get crazy." The second hour is devoted to positive comments and finding solutions to issues raised. Out in Green Bay, Wis., the cost of these formal gripe sessions is a measly $35 to $50. ❑

UNIPHOTO

WORKPLACE ISSUES

TOP ON-THE-JOB STRESS POINTS FOR MANAGERS



Source: Survey of 225 middle managers, more than half of whom supervise one to 15 people. Dunhill Personnel System Inc. and the Columbia Business School, 1990.

INCENTIVES

Tackling Trucking Turnover

Long hauls over the same roads were wearing on veteran drivers at The Daniel Co. of Springfield, a $4.3-million Missouri-based trucking company. The routine was taking its toll on the company, too, with sliding efficiency, employee turnover, and rising costs.

"There wasn't enough of a challenge to be more efficient," says president Larry Daniel. So he told drivers that if they cut their costs, they could keep the change.

Daniel's drivers pocket the savings they rack up by shopping for cheaper fuel, finding shorter routes, and improving their mileage. Some truckers earn as much as $2,500 in annual bonuses. Turnover has been cut by 25% as a result. And with drivers logging fewer miles, Daniel's trucks suffer less wear and tear. ❑

HANDS ON (continued)

Cost cutting on the road conserves money and drivers.

CEO'S READING LIST

The Art of War
by Sun Tzu, translated by Thomas Cleary, Shambhala Publications Inc., 1988

DILIP CHAUHAN

"*The Art of War*, written more than 2,000 years ago by a Chinese warrior, is highly militaristic, and its examples are often uncivilized, but it is one of those 200 or so books every business executive should read.

"I have used this and other books to arm my managers for the competitive situations business presents. One lesson: avoid confrontation with a stronger opponent. Digital made this mistake when it tried to take on an IBM stronghold by marketing PC clones. Our company suggested to Digital that it instead fight the battle where it is strong and IBM weak—networks. We developed PC network servers for Digital that are cheaper, faster, and more powerful than IBM PCs.

"My favorite quote from the book is 'Victory can never be won on the battlefield until it is won in the mind of the enemy.' This leads to the book's ultimate lesson—what Sun Tzu calls the 'sheathed sword.' The greatest generals are those who achieve their objectives without fighting.

"Sun Tzu's philosophy should be balanced with more moderate ones. Anyone who totally subscribes to *The Art of War* will frequently win but ultimately may be locked up."

—James Bender,
Logicraft Inc.,
Nashua, N.H.

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COVER PHOTOGRAPH
by
Ed Kashi

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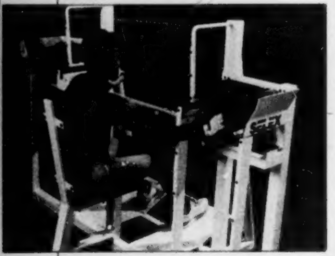
NEW BUSINESSES

UNIPHOTO

CARRIED AWAY A Florida inventor has come up with a gym contraption that eliminates the need to lug free weights around. The Selex machines offer the convenience of Nautilus, housing weights alongside a barbell. Weights can be added or taken away with the flip of a tab. The founders expect the system, licensed to Pyramid Fitness Industries, of Sharpsville, Pa., to be easy to sell, since it's a variation on an established product, not a new concept.



UNIPHOTO

■

POLLUTION CONTROL Even public relations people are narrowing their markets. One former White House staffer and Superfund consultant has started a firm to handle the touchy publicity surrounding hazardous-waste cleanups and the siting of new incinerators and landfills. By subletting space from a prominent environmental law firm in Washington, D.C., Environmental Issues Management gains office services and prospective contacts at no extra cost.

■

IT'S A SMALL WORLD In Sweden, scientist Lennart Alfredeen developed a heating process that Volvo and Saab have used to make metal parts more quickly and cheaply. But it wasn't until he visited the United States that he was offered financing to start a company. Now Magnatech is up and running in Bettendorf, Iowa—courtesy of state and local government loans and an alliance with another manufacturer—selling the Speed Heater to customers both here and in Europe.

■

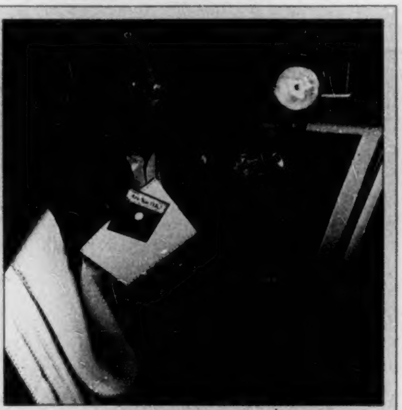
ONE PLUS ONE IS THREE The premise is that the whole is greater than the sum of its parts. Polymer Solutions, in Worthington, Ohio, does contract product development for manufacturers; it was formed by two big companies, GE Plastics and the design firm Fitch Richardson-Smith. As a so-called company without walls, it draws ad hoc teams from both parents for each assignment, touting fast turnaround time.

The Accidental Businessman

Usually people start companies because they've either spotted a need and created a product, or invented a product and located a need. But other folks launch businesses by just sort of stumbling into them.

Take Bruce Johnson, who tinkered with computers when he wasn't running his movie theater or video store in Osage, Iowa. When the local police department needed help interpreting bids on a computer system, he agreed to help.

The police wanted a system that would use automatic phone calls to check on housebound elderly people, but none of the proposals had the right software. So Johnson wrote some. "I was new to the community," he says, "and figured it was a good public service." He got $300 for expenses.



STEVE NIEDORF

Northland Innovation's Bruce Johnson

Soon after going on-line, the network saved its first life. Associated Press picked up the story, then "Good Morning America." As hundreds of calls poured in, Johnson, who held the copyright, took the hint. Year-old Northland Innovation Corp. has sold 75 Are You OK? systems, with marketing help from an Osage police officer.

NOTEBOOK

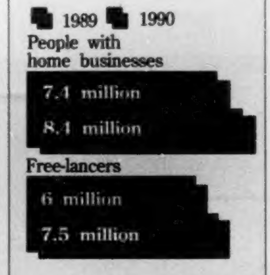
Creativity, not capital, is the resource of choice for compulsive entrepreneurs. So suggest preliminary findings of a study of prolific business founders by the Wharton School. While first-time entrepreneurs also depend on imagination, those who start many companies often eschew the use of available cash to pursue the route novices take by necessity. Why the miser's touch? It keeps them from getting lazy, they say.

■

So some like to depend on creativity. Others still lust after cold cash. For them, DataMerge, a new software firm in Denver, sells a $350 database of finance sources.

■

THE HOME ECONOMY



(Nearly 14% more people are running home businesses this year than last, while 25% more people are free-lancing.)

Source: Link Resources, New York City

■

"It's in to say, 'I have a home-based business.' It's the newest status symbol." —Coralee Kern, director of the National Association of Cottage Industries

HANDS ON

A MANAGER'S NOTEBOOK

TRAINING

Extra, Extra, Read All About It

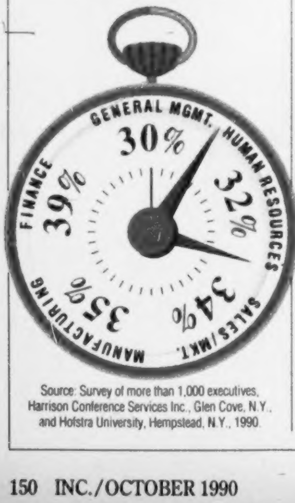
"I don't have time to read all the trade magazines and keep up with technology," says Clay Page, CEO of Co-op Building Consultants, in Corpus Christi, Tex. But he doesn't let them pile up. Instead, at his residential construction company, he assigns masons to read up on the latest bricklaying techniques, carpenters to study stories about the newest saws, and framers to evaluate articles on aluminum versus wooden two-by-fours.

The reading helps employees keep in touch with what's going on beyond the job site. "These employees are helping to manage the company," says Page, who reads only what employees clip from the magazines. In 1989 Co-op's 54 employees improved productivity 220% and reached $2.7 million in sales. ❑

MEETINGS

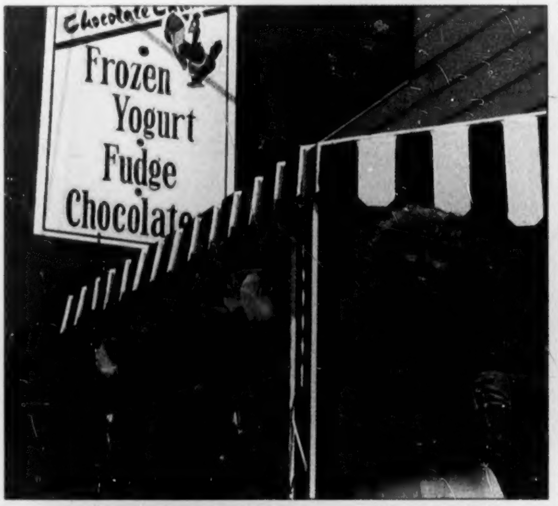
UNPRODUCTIVE DISCUSSIONS

In your department how much time in meetings is wasted ?



Source: Survey of more than 1,000 executives, Harrison Conference Services Inc., Glen Cove, N.Y., and Hofstra University, Hempstead, N.Y., 1990.

JOHN NIENHUIS



Pat Bruner devotes one day each year to financial advice.

STRATEGIC PLANNING

The Gang's All Here

If you don't have an outside board of directors, you might want to take better advantage of the advisers you do have—your banker, accountant, and lawyer. Once a year Pat Bruner, based in Green Bay, Wis., and president of TLC Childcare Centers Inc. and The Chocolate Chicken, gathers her advisers at the bank or in her accountant's office for a day of thrashing out issues of expansion, acquisition, and capital expenditures. "It's a way to explain my vision," says Bruner, "and it keeps me from playing telephone tag and having someone—like the banker—veto my plans later."

The sessions cost about $1,200 in accountant and attorney fees. "I can't stress how cheap that is to get so much worked out," says Bruner, who plans to open two more day-care centers and start a day-care magazine. ❑

CUSTOMER RELATIONS

Most Valuable Players

While baseball fans cheer at the World Series this month, American Information Systems customers will be fielding fly balls batted by AIS employees. Seven years ago AIS was a Fort Lauderdale, Fla., start-up eager to build customer loyalty for its integrated telephone and computer systems. CEO Jack Namer found baseball to be the ticket.

Today each of AIS's 61 offices has sold customers on a 10-month-season baseball program playing against AIS-employee and other customer teams. The top teams play off in a championship series at the New York Yankees' spring-training field in Fort Lauderdale. AIS, today a $15-million company, picks up the tab for the weekend series. "If they switch vendors, our customers have to turn in their uniforms," says Namer. "They're loyal." ❑

RECRUITING

Tapping the Big Boys

You say you're trying to grow your company? Where do you turn to find top-notch employees? Try the human resources departments of corporations that are downsizing. They'll send you free books filled with employees' résumés, from difficult-to-find factory floor workers to R&D engineers.

When Eric Giler, president of Brooktrout Technology Inc., a maker of electronic-messaging systems in Needham, Mass., doubled the payroll from 20 to 40 people in six months, he found five engineers that way. By not using a corporate headhunter, he estimates he saved $30,000. "It's tough to get hired by these companies," says Giler. "They've done a first cut for us." ❑

ENVIRONMENT

Reduce and Recycle

Don't know where to start your company's waste-reduction program? The Washington State Department of Ecology has two free booklets, printed on recycled paper, that can point you in the right direction:

- *Success Through Waste Reduction* gives case histories of eight small to midsize companies' programs for a variety of waste and recycling needs.
- *Waste Reduction in Your Business* features a due-diligence form to help you analyze what your company can do.

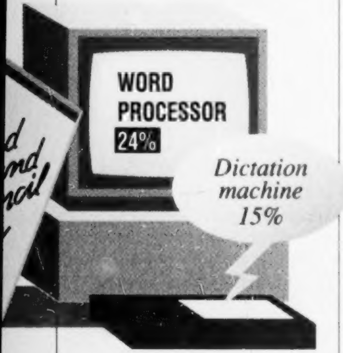
Together, the booklets can make what might have been a formidable project a breeze. Call the department's Business Assistance Unit at (206) 438-7585, or in Washington call (800) RECYCLE. ❑

CHARTS: ELIOT BERGMAN

COMMUNICATION

HOW USER FRIENDLY IS IT?

What executives use to write letters



Source: Survey of 312 executives, John Rost Associates, New York City, 1990

PAUL HAYNES

MARKETING

You Can Get There from Here

The whole purpose of business cards is to make sure people not only remember you but also know how to reach you in the future. Russell Vernon, president of West Point Market, an $8-million Akron supermarket, understands all that and takes it a step further. On the back of his card is a map showing how to get to his supermarket—famous locally for its selection of gourmet foods and meats—from almost anywhere.

"I decided that we couldn't grow by adding stores," says Vernon. "We'd lose the level of service we're known for if we spread management too thin." So instead of bringing his products to a wider customer base—by adding more stores—he has decided to bring customers to him by providing the map. Says Vernon, "We have customers from as far as Cleveland, 35 miles away." ❑

MARKET RESEARCH

Dogs off the Shelf

Chairman Norman Melnick

Norman Melnick, chairman of Pentech International Inc., an Edison, N.J., maker of pens, pencils, and markers, is proud of his successful 50-product line. But occasionally even he produces an item no one wants to buy.

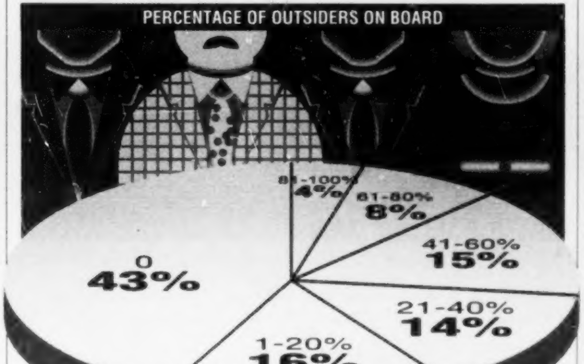
When that happens, Melnick does everything in his power to get the product off the shelves quickly. He gives the retailer a choice between accepting money that can be used to advertise the product or simply sending the product back at Pentech International's expense.

"If a product isn't selling, I want to get it out of there because it's taking up space that can be devoted to another part of my line that moves," says Melnick. "Besides, having a product languish on the shelves doesn't do much for our image." ❑

BOARD OF DIRECTORS

INSIDE JOB

More than two-thirds of INC. 500 companies surveyed have boards. But few take well to outside directors.



Source: INC. survey of 456 companies reporting a four-year growth rate of 573% or higher since 1984

CEO'S READING LIST

The Chalice and the Blade

by Riane Eisler
Harper & Row Publishers Inc., 1987

&
Our History, Our Future

"Eisler traces how men and women relate from historical, anthropological, and archaeological perspectives. She describes how early societies were based on partnerships—what we'd now call the more 'female' style—and that sometime around 1200 B.C. we shifted toward a more dominant, hierarchical structure. She concludes that we're moving back toward a partnership model, which we ought to expedite.

"What's popular in business now is the partnership model, rather than the dominator model. In my own management style, when a decision needs to be made, I can be direct and decisive, but I like to let people decide how and when they do their work and how they're compensated. As my company grows, and I'm putting more structures in place, I've been struggling with how to keep what's been positive about being less structured.

"As women, we don't give ourselves enough credit. We don't ask enough about how much money we make, how much power we have, how much impact we can have. Many of us have an obligation to step forward as role models and shake up the system."

—Susan Marks,
president, ProStaff
Personnel Services,
Milwaukee

DILIP CHAUHAN

HANDS ON

INCENTIVES

Dollars for Kudos

"We want this to be a customer-service-driven organization," says Bill Wheeler, president and general manager of Cellular One, of Indianapolis. So he got his six phone installers to approve a simple bonus plan that accounts for more than 10% of their pay.

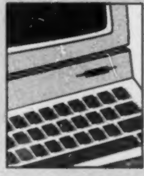
As part of the plan, each time a customer commends an employee's work—in a letter, in a survey, or to Wheeler in person—that employee receives $10. Each time a customer complains about an employee, $10 is deducted, and $20 is deducted every time a customer's vehicle is damaged.

"Installers really go out of their way for customers now," says Wheeler, who estimates damages to customers' vehicles have plummeted 70%, compliments have tripled, and sales have grown by 613% since the program was started three years ago. ❑

ON THE CHEAP

TEXT-SEARCH SOFTWARE

By Cary Lu



The hard disk drive on your desktop computer functions as the digital equivalent of a file cabinet, complete with a similar problem: it's easy to misfile documents. Text-search software can help in a variety of ways. You can find misplaced files by searching for a word or phrase, and the software will display every file that contains the text on the hard disk. When you expect your search might turn up a lot of files, you can exclude some files by using qualifiers such as "and," "not," or "or" and retrieve only those files you want. Using such qualifiers is called Boolean searching.

Effective text-search software need not be expensive:

■ **GOfer** (about $50) from Microlytics Inc., in Rochester, N.Y., for IBM PCs and Macintoshes scans every portion of the hard disk you specify. As a result, a search may take a minute or more with a large hard disk.

■ **Dragnet** (about $100) from Access Softek, in Berkeley, Calif., is a search program that works under Microsoft Windows on IBM PCs and can find text within graphics files. If you are searching for a quarterly report, Dragnet will dig up not only letters and reports but also graphs.

■ **Magellan** (about $120) from Lotus Development Corp., in Cambridge, Mass., is a multipurpose IBM PC program with text-searching capabilities. It indexes your hard disk, which makes searching fast, a few seconds at most.

■ **On Location** (about $80) from ON Technology, in Cambridge, Mass., for the Macintosh also indexes for quick searching, but it cannot do Boolean or phrase searches. ❑

MANAGING PEOPLE

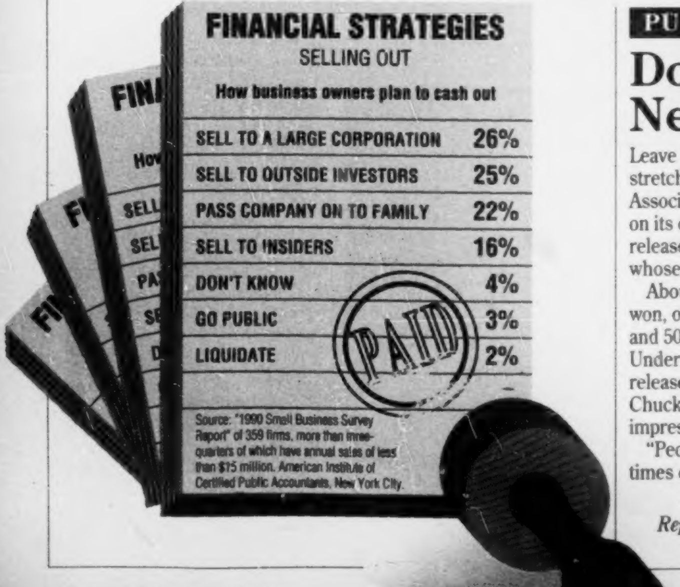
Second Founding

Scott Gibson likes a good party, but he decided to call Sequent Computer Systems' seventh anniversary bash a second founding. "We wanted to get 1,300 people as charged up as the founding team," says Gibson, president of the $146-million Beaverton, Ore., company.

So Sequent posted billboards around town announcing the occasion, hired a band, and arranged to close off a few blocks in downtown Portland. The second founding featured a multimedia show, which included slides of employees and their kids and snatches of President John F. Kennedy's speech about sending a U.S. astronaut to the moon.

"It really worked—we had people crying at the end of this thing," Gibson says. And the new mission was clear: "We want to build a billion-dollar global company we can be proud of." ❑

BRUCE SANDERS



FINANCIAL STRATEGIES

SELLING OUT

How business owners plan to cash out

SELL TO A LARGE CORPORATION	26%
SELL TO OUTSIDE INVESTORS	25%
PASS COMPANY ON TO FAMILY	22%
SELL TO INSIDERS	16%
DON'T KNOW	4%
GO PUBLIC	3%
LIQUIDATE	2%

Source: "1990 Small Business Survey Report" of 359 firms, more than three-quarters of which have annual sales of less than $15 million. American Institute of Certified Public Accountants, New York City.

PUBLIC RELATIONS

Double-Barreled News Releases

Leave it to a public relations firm to teach other businesses how to stretch their own PR dollars. Three years ago Floathe Johnson Associates, a firm in Kirkland, Wash., began sending news releases on its own progress directly to prospective clients. Today the releases are the top generator of new business leads for the firm, whose annual sales are $25 million.

About once a month an announcement of a new account, award won, or new hire goes out to 100 members of the press, 150 clients, and 500-plus prospects. One to five prospects call to learn more. Under such circumstances, it can be tempting to turn a news release into a sales pitch. Resist the urge, senior vice-president Chuck Pettis says, or the release will alienate the press and won't impress prospects.

"People say they read about us in the paper," Pettis says. "Nine times out of 10 I bet they are remembering the press release." ❑

Reported by Teri Lammers, Leslie Brokaw, Paul B. Brown, Susan Greco, and Martha E. Mangelsdorf